WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

Domtar A.W. LLC

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from the following facilities:

Nekoosa Mill
301 Point Basse Ave., Nekoosa, Wisconsin

Wastewater Reclamation Center
405 Church Ave., Nekoosa, Wisconsin
NW 1/4 of Section 2, Town of Saratoga

to the

Wisconsin River, groundwaters in Wood County, and land application sites in Adams, Juneau, Portage, Waushara, and Wood Counties.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit, according to Chapter NR 200, Wis. Adm. Code, at least 180 days prior to the expiration date given below.

State of Wisconsin Department of Natural Resources
For the Secretary

By _____
Trevor Moen
Wastewater Engineer
Bureau of Water Quality

_____
Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - October 01, 2018 **EXPIRATION DATE - September 30, 2023**

PERMIT MODIFICATION EFFECTIVE DATE: May 01, 2021

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1 Influent Requirements – Cooling Water Intake Structure (CWIS)

1.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)**
701	Intake number 701 represents the Nekoosa mill's Nepco Lake intake.
702	Intake number 702 represents the Nekoosa mill's Wisconsin River intake.

1.2 Monitoring Requirements and BTA Determinations

The permittee shall comply with the following monitoring requirements.
The intake(s) has been reviewed for compliance with BTA (Best Technology Available) standards and the BTA determination(s) is listed below.

1.2.1 Sampling Point 701 - Nepco Lake Intake

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	See Section 1.2.1.1 for more detail.
Intake Water Used Exclusively For Cooling		% Flow	Annual	Estimated	

1.2.1.1 Flow Rate Sample Type

The permittee shall report the total daily flow that is representative of the Nepco Lake Intake. Total daily means the determination of daily flow from at least one measurement.

1.2.1.2 CWIS - Authority to Operate and Description

The permittee shall at all times properly operate and maintain all water intake facilities. The permittee shall give advance notice to the Department of any planned changes in the location, design, operation, or capacity of the intake structure. The permittee is authorized to use the Nepco Lake intake system which consists of the following:

- **Location:** Nepco Lake intake is located at the outlet of the lake adjacent to the hydroelectric generation dam. Latitude 44° 20’ 26.6” N, Longitude 89° 50’ 37.7” W
- **General Description:** The Nepco Lake intake structure is split between two separate intake channels measuring 7 ft. wide by 8 ft. high. Spanning the inlet to each channel are vertical bar racks with ¼-in bars set at 1 ½-inch centers. Water is fed by gravity through the East side of the intake structure, over initial overflow weir, past the vertical bar racks, and into a 60-inch Lake-to-Basin pipe. Current configuration also has a 48-inch pipe installed to the West intake channel, which supplies the lake pump discharge. The West Channel is currently not in use and slide gates are in place. A slide gate can be installed directly behind the bar racks at each intake channel to split flow between the two, as needed. The water is normally directed via lake level through the Lake-to-Basin pipe to the series of settling basins, where the raw water is gravity fed through

more bar racks, eight 60 mesh rotary drum screens, and into the two deep wells. These two deep wells act as temporary holding tanks, and the water is then pumped to the Domtar-Nekoosa facility located approximately 2 miles away.

Two additional intake pump systems can be used when there is extreme drought: the lake pumps (as mentioned above) and the tail race pumps. The lake pumps and tail race pumps are only used during drought conditions when the lake level is low and have not been in operation for a significant amount of years (approximately at the time of the Port Edwards shutdown).

- **Major Components:** Bar racks and rotary drum screens
- **Maximum Design Intake Flow (DIF):** 34.56 MGD
- **Maximum Through-Screen Design Intake Velocity:** 1.48 fps at the vertical bar rack

1.2.1.3 Cooling Water Intake BTA (Best Technology Available) Determination

The Department believes that the Nepco Lake intake, as described above in section 1.2.1.4, represents BTA for minimizing adverse environmental impact in accordance with the requirements in section s. 283.31(6), Wis. Stats. and section 316(b) of the Clean Water Act.

Note: This is an interim BTA determination based on the Department's February 2, 2009 guidance for evaluating cooling water intake structures using best professional judgment. Since the pervious permit for the facility expires prior to or on July 14, 2018, the Department granted the permittee an alternate schedule for submittal of the application materials in 40 CFR 122.21(r)(6) pursuant to 40 CFR 125.95(a)(2), those requirements are not applicable until the next permit reissuance. Nevertheless, for informational purposes this permit includes references to the new federal regulations in 40 CFR Parts 122 and 125, and some of the requirements are included at the Department's discretion to begin implementation of the new rule in this permit.

1.2.2 Sampling Point 702 - Wisconsin River Intake

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	See Section 1.2.2.1 for more detail.
Intake Water Used Exclusively For Cooling		MGD	Annual	Estimated	

1.2.2.1 . Flow Rate Sample Type

The permittee shall report the total daily flow that is representative of the Wisconsin River Intake. Total daily means the determination of daily flow from at least one measurement.

1.2.2.2 CWIS - Authority to Operate and Description

The permittee shall at all times properly operate and maintain all water intake facilities. The permittee shall give advance notice to the Department of any planned changes in the location, design, operation, or capacity of the intake structure. The permittee is authorized to use the Wisconsin River cooling water intake system which consists of the following:

- **Location:** Adjacent to the Nekoosa Dam at the discharge of what is considered the Nekoosa Flowage of the Wisconsin River. Latitude 44° 18' 47.1" N, Longitude 89° 53' 44.4" W.

- **General Description:** Wisconsin River water is taken in through a debris rack located under the Effluent Surge Tank on the Headwater Side of the Nekoosa Dam which feeds into a 36-inch intake pipe. This pipe, located 9.5 ft. from the bottom to center of the pipe and 12 ft. below normal water surface, splits into two 24-inch intake pipes. The intake pipes have Automatic Level Control Valves (located by the screens) to control the level of the two North and two South rotary drum river screens. Each river screen has a spray bar that washes off debris that overflows into two troughs (one for each set of screens) that discharges back to the River on the tail water side of the Dam. Once passing through the river screens, the river water enters the Clearwell where the pump suctions are located. There are two river water Pumps that supply the paper mill with a maximum of 8,000 gpm, tow cooling water pumps that supply the #6 Turbine Generator Condenser with a maximum of 5,510 gpm, and a cooling water pump that supplies #1 and #2 Air Compressor with a maximum of 500 gpm.
- **Major Components:** Debris rack and rotary drum screens with backwash system
- **Maximum Design Intake Flow (DIF):** 20.17 MGD
- **Maximum Through-Screen Design Intake Velocity:** 0.14 fps at the debris rack

1.2.2.3 Cooling Water Intake BTA (Best Technology Available) Determination

The Department believes that the Wisconsin River cooling water intake, as described above in section 1.2.2.4, represents BTA for minimizing adverse environmental impact in accordance with the requirements in section s. 283.31(6), Wis. Stats. and section 316(b) of the Clean Water Act.

Note: This is an interim BTA determination based on the Department's February 2, 2009 guidance for evaluating cooling water intake structures using best professional judgment. Since the pervious permit for the facility expires prior to or on July 14, 2018, the Department granted the permittee an alternate schedule for submittal of the application materials in 40 CFR 122.21(r)(6) pursuant to 40 CFR 125.95(a)(2), those requirements are not applicable until the next permit reissuance. Nevertheless, for informational purposes this permit includes references to the new federal regulations in 40 CFR Parts 122 and 125, and some of the requirements are included at the Department's discretion to begin implementation of the new rule in this permit.

1.3 Cooling Water Intake Structure Standard Requirements

The following requirements and provisions apply to all water intake structures identified as sampling points in section 1.1.

1.3.1 Future BTA for Cooling Water Intake Structure

BTA determinations for entrainment and impingement mortality at cooling water intake structures will be made in each permit reissuance, in accordance with 40 CFR §125.90-98. **In subsequent permit reissuance applications, the permittee shall provide all the information required in 40 CFR §122.21(r)(2) through (8).**

Exemptions from some permit application requirements are possible in accordance with 40 CFR §125.95(c) and §125.98(g), where information already submitted is sufficient. If an exemption is desired, a request for reduced application material requirements must be submitted at least 2 years and 6 months prior to permit expiration. Past submittals and previously conducted studies may satisfy some or all of the application material requirements.

Note: The Department is in the process of promulgating ch. NR 111, Wis. Adm. Code, on cooling water intake structures. The objective of ch. NR 111 is to incorporate federal requirements for cooling water intake structures into the state's administrative code. If ch. NR 111 is promulgated prior to the expiration of this permit, the permittee may be subject to ch. NR 111 application requirements for the next permit reissuance.

1.3.2 Visual or Remote Inspections

The permittee shall conduct a weekly visual inspection or employ a remote monitoring device during periods when the intakes are in operation. The inspection frequency shall be weekly to ensure the intakes are maintained and operated to function as designed.

1.3.3 Reporting Requirements for Cooling Water Intake

The permittee shall adhere to the reporting requirements listed below:

1.3.3.1 Annual Certification Statement and Report

Submit an annual certification statement signed by the authorized representative with information on the following, no later than January 31st for the previous year:

- Certification that water intake structure technologies are being maintained and operated as set forth in this permit, or a justification to allow a modification of the practices. Include a summary of the required Visual or Remote Inspections.
- If there are substantial modifications to the operation of any unit that impacts the water withdrawals or operation of the water intake structure, provide a summary of those changes.
- If the information contained in the previous year's annual certification is still applicable, the certification may simply state as such.

1.3.4 Intake Screen Discharges and Removed Substances

Floating debris and accumulated trash collected on the water intake trash racks shall be removed and disposed of in a manner to prevent any pollutant from the material from entering the waters of the State pursuant to s. NR 205.07(3)(a), Wis. Adm. Code, except that backwashes may contain fine materials that originated from the intake water source such as sand, silt, small vegetation or aquatic life.

1.3.5 Endangered Species Act

Nothing in this permit authorizes take for the purpose of a facility's compliance with the Endangered Species Act. Refer to 40 CFR §125.98 (b) (1) and (2).

2 In-Plant Requirements

2.1 Sampling Point(s)

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)**
101	At in-plant Sampling Point 101 (NK BLEACH PLANT D1), overflow from the first stage chlorine dioxide washer seal box (D1) in the Nekoosa mill's pulp bleach plant shall be sampled prior to combining with overflow from either the enhanced caustic washer seal box (EOP) or the second stage chlorine dioxide washer seal box (D2).
102	At in-plant Sampling Point 102 (NK BLEACH PLANT EOP), overflow from the EOP stage in the Nekoosa mill's pulp bleach plant shall be sampled prior to combining with overflow from either the D1 or D2 stages.
103	At in-plant Sampling Point 103 (NK BLEACH PLANT D2), overflow from the D2 stage in the Nekoosa mill's pulp bleach plant shall be sampled prior to combining with overflow from either the D1 or EOP stages.
104	At in-plant Sampling Point 104 (NK D1, EOP and D2 COMBINED), overflow from the Nekoosa mill's D1, EOP and D2 bleach stages shall be sampled after mixing, but prior to combining with other waste streams from the Nekoosa mill's chlorine dioxide plant and tall oil plant.
106	At in-plant Sampling Point 106 (NK INFLUENT FORCE MAIN), process wastewaters from the Nekoosa mill shall be sampled after mixing at the mill's main collection tank, but prior to discharge to the Wastewater Reclamation Center.
109	Field blank to accompany mercury monitoring at the Wastewater Reclamation Center
110	At in-plant Sampling Point 110 (NCP WASTEWATER TANK), the permittee shall sample the process wastewaters from Nekoosa Coated Products (NCP) at the NCP wastewater tank prior mixing with other waste streams in mill's main collection tank.

2.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

2.2.1 Sampling Point 101 - NK BLEACH PLANT D1; 102- NK BLEACH PLANT EOP; 103- NK BLEACH PLANT D2

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Weekly	Estimated	See Sections 2.2.1.1 and 2.3 for more detail.
Chloroform		mg/L	Weekly	Grab Comp	See Sections 2.2.1.2 and 2.3 for more detail.

2.2.1.1 Flow Rate Estimate

Flow rate shall be estimated on a weekly basis at Sampling Points 101 (NK BLEACH PLANT D1), 102 (NK BLEACH PLANT EOP), and 103 (NK BLEACH PLANT D2). Estimated is defined in s. NR 218.04(15), Wis. Adm. Code.

2.2.1.2 Sample Type for Chloroform

A separate grab-composite sample for chloroform is required at Sampling Points 101 (NK BLEACH PLANT D1), 102 (NK BLEACH PLANT EOP), and 103 (NK BLEACH PLANT D2). The three grab-composite samples shall be collected during the same 24-hour period and analyzed separately.

For each bleach stage, a sample type of grab composite means a composite sample made up of at least three equal-volume grab samples. The permittee shall collect the grab samples at approximately equal time intervals over a 24-hour period with at least one grab sample being collected during each 8-hour shift. While grab samples may be composited prior to being analyzed for chloroform, they must be composited at the laboratory where the analysis is performed.

2.2.2 Sampling Point 104 - NK D1, EOP and D2 COMBINED

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	Flow rate monitoring is not required if the permittee continues to submit monthly certifications for chloroform. See Section 2.3 for more detail.
Dioxin, 2,3,7,8-TCDD	Daily Max	<10 pg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
Furan, 2,3,7,8-TCDF	Daily Max	31.9 pg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
Chloroform	Daily Max	6.7 lbs/day	Weekly	Calculated	Sampling for chloroform is not required if the permittee continues monthly certifications, see Section 2.3 for more detail. If sampling is required, see Section 2.2.2.4 for more detail.
Chloroform	Monthly Avg	4.01 lbs/day	Weekly	Calculated	Sampling for chloroform is not required if the permittee continues to submit monthly certifications, see Section 2.3 for more detail. If sampling is required, see Section 2.2.2.4 for more detail.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Trichloro- syringol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
3,4,5-Trichloro-catechol	Daily Max	<5.0 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
3,4,6-Trichloro-catechol	Daily Max	<5.0 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
3,4,5-Trichloro-guaiacol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
3,4,6-Trichloro-guaiacol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
4,5,6-Trichloro-guaiacol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
2,4,5-Trichloro-phenol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
2,4,6-Trichloro-phenol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
Tetrachloro- catechol	Daily Max	<5.0 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Tetrachloro- quaiacol	Daily Max	<5.0 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
2,3,4,6-Tetra-chlorophenol	Daily Max	<2.5 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.
Pentachloro- phenol	Daily Max	<5.0 µg/L	Annual	24-Hr Comp	Sampling for this parameter is waived, see Section 2.5. If sampling is required, see Sections 2.2.2.1 - 2.2.2.3 for more detail.

2.2.2.1 Analytical Test Methods

The permittee shall use Method 1613 for TCDD and TCDF and Method 1653 for the chlorinated phenolic compounds listed in the table above. Alternate methods may be used if they are approved by EPA for use with wastewater effluents and provide a minimum level equal to or less than the effluent limit of the parameter being tested.
The Department has a provision for discretionary acceptance for test results from a non-certified laboratory in s. NR 149.11, Wis. Adm. Code. The Department will accept results of testing for chlorinated phenolic compounds following a review by Department chemists in the Laboratory Certification Program. The review will be an effort to evaluate requirements in ch. NR 149, Wis. Adm. Code.

2.2.2.2 Determination of Compliance

Detectable effluent concentrations equal to or greater than the effluent limit and non-detectable effluent concentrations at limits of detection greater than the effluent limit do not comply with an effluent limit that is expressed as a less-than value. For example, monitoring results of 10 pg/L, 11 pg/L and <11 pg/L do not comply with the 2,3,7,8-TCDD daily maximum effluent limit of <10 pg/L.

2.2.2.3 Sample Type for Dioxin, Furan and the Chlorinated Phenolics

The sample type of 24-hour composite for dioxin, furan and the chlorinated phenolics may be either time-proportional or flow-proportional.

2.2.2.4 Sample Type for Chloroform

A calculated sample type for chloroform means the sum of test results for Sampling Points 101 (NK BLEACH PLANT D1), 102 (NK BLEACH PLANT EOP) and 103 (NK BLEACH PLANT D2) when the results are expressed in units of pounds per day.

2.2.3 Sampling Point 106 - NK INFLUENT FORCE MAIN

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	See Section 2.2.3.1 for more detail.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
pH (Maximum)		su	Daily	Grab	See Section 2.2.3.1 for more detail.
pH (Minimum)		su	Daily	Grab	See Section 2.2.3.1 for more detail.
Phosphorus, Total		mg/L	Monthly	Grab	See Section 2.2.3.1 for more detail.

2.2.3.1 Influent Characterization and Monitoring

The permittee is not required to monitor the wastewater influent to the Wastewater Reclamation Center. Influent monitoring is completely voluntary. The permittee may characterize the wastewater influent to Wastewater Reclamation Center. This influent characterization will allow for proper wastewater treatment process control.

2.2.4 Sampling Point 109 - WRC MERCURY FIELD BLANK

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Mercury, Total Recoverable		ng/L	Quarterly	Blank	See Section 2.2.4.1 for more detail.

2.2.4.1 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wis. Adm. Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

2.2.5 Sampling Point 110 - NCP WASTEWATER TANK

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	
PFAS		ng/L	Quarterly	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Section below for more information.

2.2.5.1 PFAS Sampling

Beginning May 1, 2021, the permittee is required to estimate the total daily flow rate of the NCP wastewater and sample the NCP wastewater for perfluoroalkyl and polyfluoroalkyl substances (PFAS) listed in and using the protocols in the department's PFAS Update-Default Reporting List for Sampling and Analysis Requirements and Expectations (current version dated March 1, 2021).

2.3 Certification in Lieu of Monitoring for Chloroform

The permittee may demonstrate compliance with the chloroform monitoring and limitations in Section 2.2.1 and Section 2.2.2 if the permittee meets the requirements of this section. The permittee is not required to monitor for chloroform and flow rate at Sampling Points 101, 102, 103, and 104 if the permittee continues to comply with the following conditions:

1) Certifies that they maintain a record of the maximum value for each of the following process and operating conditions for the fiber line that was recorded during the collection of each of the samples used to make the compliance demonstration required under 40 CFR 430.02 (f)(2)(i):
   a) The pH of the first chlorine dioxide bleaching stage;
   b) The chlorine (Cl_2) content of the chlorine dioxide (ClO_2) used on the bleach line;
   c) The kappa factor of the first chlorine dioxide bleaching stage; and
   d) The total bleach line chlorine dioxide application rate.
2) Identifies the chlorine-containing compound used for bleaching are unchanged from those used during the collection of samples used to make the demonstration required under 40 CFR 430.02 (f)(2)(i).
3) Certifies that the fiber line does not use either elemental chlorine or hypochlorite as bleaching agents.

If the permittee exceeds the recorded maximum value for any of the process and operating conditions for the fiber line under this section, the permittee must comply with the requirements in Section 2.3.2.
As used above, the "compliance demonstration" represents the period from January 1, 2001 through March 31, 2003 when pH, chlorine content and total chlorine dioxide application data were collected and the period from February 21, 2001 through March 31, 2003 when chloroform data were collected. "Kappa factor," "total bleach line chlorine dioxide application rate," and "chlorine-containing compounds" have their meanings specified in 40 CFR 430.02 (f)(7).

2.3.1 Change of Any Process and Operating Conditions that Exceeds the Maximum Value

If the permittee changes the process and operating conditions on the fiber line so that one or more exceeds the maximum value recorded under Section 2.3 "Certification in Lieu of Monitoring for Chloroform", the permittee must comply with the following conditions if the permittee wishes to continue the exemption from chloroform monitoring:

1) Demonstrate, based on 104 measurements taken over a period of two years of monitoring conducted in accordance with Section 2.2.1 or Section 2.2.2.
2) Certifies that they will maintain a record of the maximum value for each of the following process and operating conditions for the fiber line that was recorded during the collection of each of the samples used to make the demonstration required under Section 2.3.2.
   a) The pH of the first chlorine dioxide bleaching stage;
   b) The chlorine (Cl_2) content of chlorine dioxide (ClO_2) used on the bleach line;
   c) The kappa factor of the first chlorine dioxide bleaching stage; and
   d) The total bleach line chlorine dioxide application rate;
3) Identify the chlorine-containing compound used for bleaching during the collection of each sample used to make the demonstration required under Part 1; and
4) Certifies that the fiber line does not use either elemental chlorine or hypochlorite as bleaching agents.

2.3.2 Exceedance of the Maximum Value for Any Process and Operating Conditions

If for any reason (e.g., intentionally or due to process upset) the permittee fails to maintain process and operating conditions at values equal to or less than the maximum value recorded under Section 2.3 or Section 2.3.1 for each such condition, the permittee will be in violation of the applicable chloroform limitation or standard unless:

1) Within 30 days, the permittee notifies the Department in writing of the exceedance; and
2) The permittee demonstrates compliance with the applicable chloroform limitation or standard by immediately monitoring the bleach plant effluent for chloroform at a frequency in accordance with Section 2.2.1 or Section 2.2.2 over a period of six months.

In order to continue the permittee's exemption from the minimum monitoring requirements of this section for chloroform, the permittee must meet the requirements of this section and the permittee shall recertify that the fiber line process and operating conditions do not exceed the maximum value recorded under Section 2.3 or Section 2.3.1 for each of the parameters identified in those sections.

2.3.3 Demonstrating Compliance with Alternative Chloroform Monitoring

The permittee may demonstrate compliance with chloroform limits by utilizing the alternative monitoring method specified by Section 2.3 and certifying each month that:

> *The chlorine-containing compound used for bleaching is unchanged from that used during the compliance demonstration, and the pH of the first chlorine dioxide bleaching stage, the chlorine (Cl_2) content of the chlorine dioxide (ClO_2) used on the bleach line, the kappa factor of the first chlorine dioxide bleaching stage, and the total bleach line chlorine dioxide application rate during the reporting period did not exceed the maximum value recorded for each such condition during the collection of samples used to make the compliance demonstration.*

The permittee shall include the above certification statement as a facility comment on monthly electronic discharge monitoring report forms.

2.4 Best Management Practices for Spent Pulping Liquor, Soap and Turpentine Management, Spill Prevention and Control

The permittee shall implement Best Management Practices (BMPs) as specified in 40 CFR 430.03 for direct discharging mills. Best Management Practices for spent liquor, soap and turpentine management, spill prevention and control include, but are not limited to, the following.

2.4.1 Requirement to Implement Best Management Practices

The permittee shall implement the following BMPs:

1) The permittee shall return spilled or diverted spent pulping liquors, soap and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.
2) The permittee shall implement a program to identify and repair leaking equipment items. This program shall include:
    a) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap and turpentine service;
    b) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations shall be identified, temporary means for mitigating the leaks shall be provided, and the leaking equipment items repaired during the next maintenance outage;

c) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap and turpentine leaks and spills; and

d) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills or failures.

3) The permittee shall operate continuous, automatic monitoring systems that are necessary to detect and control leaks, spills and intentional diversions of spent pulping liquor, soap and turpentine. These monitoring systems should be integrated with the mill process control system.

4) The permittee shall implement a program of initial and refresher training of operators, maintenance personnel and other technical and supervisory personnel who have responsibility for operating, maintaining or supervising the operation and maintenance of equipment items in spent pulping liquor, soap and turpentine service. The refresher training shall be conducted at least annually, and the training program shall be documented.

5) The permittee shall prepare a brief report that evaluates each spill and any intentional diversion of spent pulping liquor, soap and turpentine that is not contained at the immediate process area. The report shall describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports shall be included as part of the annual refresher training.

6) The permittee shall establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors during construction.

7) The permittee shall install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks equivalent to the volume of the largest tank plus sufficient freeboard for precipitation. An annual tank integrity testing program, if coupled with other containment or diversion structures, may be substituted for secondary containment for spent pulping liquor bulk storage tanks.

8) The permittee shall conduct wastewater monitoring to detect leaks and spills, to track the effectiveness of the BMPs, and to detect trends in spent pulping liquor losses. Such monitoring shall be performed in accordance with Section 2.4.7.

9) The permittee shall install and maintain secondary containment for turpentine bulk storage tanks.

10) The permittee shall install and maintain curbing, a dike or other means of isolating soap and turpentine processing and loading areas from the wastewater treatment facilities.

2.4.2 Requirement for a BMP Plan

The permittee shall prepare and implement a BMP plan. The BMP plan must be based on a detailed engineering review as described in Section 2.4.3. The BMP Plan must specify the procedures and the practices required to meet the requirements in Section 2.4.1, the construction the permittee determines is necessary to meet those requirements including a schedule for such construction, and the monitoring program (including the statistically derived action levels) that will be used to meet the requirements of Section 2.4.8. The BMP Plan also must specify the period of time that the permittee determines the action levels established under Section 2.4.7 may be exceeded without triggering the responses specified in Section 2.4.8.

2.4.3 Detailed Engineering Review

The permittee must conduct a detailed engineering review of the pulping and chemical recovery operations (including but not limited to process equipment, storage tanks, pipelines and pumping systems, loading and unloading facilities, and other appurtenant pulping and chemical recovery equipment items in spent pulping liquor, soap, and turpentine service) for the purpose of determining the magnitude and routing of potential leaks, spills, and intentional diversions of spent pulping liquors, soap, and turpentine during the following periods of operation:

- Process start-ups and shutdowns;
- Maintenance;
- Production grade changes;
- Storm or other weather events;
- Power failures; and
- Normal operations.

As part of the engineering review, the permittee must determine whether existing spent pulping liquor containment facilities are of adequate capacity for collection and storage of anticipated intentional liquor diversions with sufficient contingency for collection and containment of spills. The engineering review must also consider:

- The need for continuous, automatic monitoring systems to detect and control leaks and spills of spent pulping liquor, soap, and turpentine;
- The need for process wastewater diversion facilities to protect end-of-pipe wastewater treatment facilities from adverse effects of spills and diversions of spent pulping liquors, soap, and turpentine;
- The potential for contamination of storm water from the immediate process areas; and
- The extent to which segregation and/or collection and treatment of contaminated storm water from the immediate process areas is appropriate.

2.4.4 Amendment of the BMP Plan

The permittee shall amend its BMP plan whenever there is a change in mill design, construction, operation or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap or turpentine from the immediate process areas.

The permittee shall complete a review and evaluation of the BMP plan five years after the first BMP plan is prepared and, except as provided in above in this section, once every five years thereafter. As a result of this review and evaluation, the permittee shall amend the BMP plan within three months of the review if the permittee determines that any new or modified management practices and engineering controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap and turpentine leaks, spills or intentional diversions from the immediate process areas. The amended BMP plan shall include a schedule for implementation of such practices and controls.

2.4.5 Review and Certification of the BMP Plan

The BMP plan, and any amendments thereto, shall be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP plan or its amendments shall certify to the Department that the BMP plan or its amendments have been prepared in accordance with good engineering practices and in accordance with 40 CFR 430.03.

2.4.6 Record Keeping Requirements

The permittee shall maintain on the mill premises a complete copy of the current BMP plan and the records specified below and shall make such BMP plan and records available to the Department and the Regional Administrator or his or her designee for review upon request.
The permittee shall maintain the following records for three years from the date they are created:

- Records tracking the repairs performed in accordance with the repair program described in Section 2.4.1;
- Records of initial and refresher training conducted in accordance with Section 2.4.1;
- Reports of uncontained spills and intentional diversions of spent pulping liquor, soap and turpentine prepared in accordance Section 2.4.1; and
- Records of monitoring required by Sections 2.4.1. and 2.4.8.

2.4.7 Monitoring Program

The permittee shall implement a monitoring program, described in Section 2.4.7.1, for the purpose of defining wastewater treatment system influent characteristics (or action levels), described in Section 2.4.7.2, that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective actions.

2.4.7.1 Monitoring Parameters and Locations

The permittee shall implement the following procedures in order to develop the action levels required by Section 2.4.7:

1) The permittee shall collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., chemical oxygen demand (COD) or total organic carbon (TOC)), or a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).

2) Monitoring shall be conducted at **Sampling Point 106,** Nekoosa mill influent force main.

2.4.7.2 Establishment of Wastewater Treatment System Influent Action Levels

In accordance with 40 CFR 430.03(h)(3) and (4), the permittee completed an initial six-month monitoring program and a second six-month monitoring program using the procedures specified in Section 2.4.7.1 and established initial action levels and revised action levels based on the results of that program by the compliance deadlines in 40 CFR 430.03(j). Please note a wastewater treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of at least six months of daily measurements. The action levels shall consist of a lower action level, which if exceeded will trigger the investigation requirements described in Section 2.4.8, and an upper action level, which if exceeded will trigger the corrective action requirements described in Section 2.4.8.

If the permittee were to change anything in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas, the action levels developed under this section shall be revised using six months of monitoring data.

2.4.8 Monitoring, Corrective Action and Reporting Requirements

The permittee shall conduct daily monitoring at **Sampling Point 106** in accordance with the procedures described in Section 2.4.7.1 for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.

Whenever monitoring results exceed the lower action level for the period of time specified in the BMP plan, the permittee shall conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP plan, the permittee shall complete corrective action to bring the mass loading below the lower action level as soon as practicable.

Although exceedances of the action levels will not constitute violations of this permit, failure to take the actions required above as soon as practicable will be a permit violation.

By the 15th of February each year, the permittee shall report to the Department the results of the daily monitoring conducted as required above for the previous calendar year. Such reports shall include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances.

2.5 Monitoring Waiver for Chlorinated Phenolic Compounds, Dioxins, and Furans

In accordance with 40 CFR 122.44(a)(2), the department has granted the permittee a monitoring waiver to forego sampling of chlorinated phenolic compounds, dioxins, and furans found at 40 CFR 430.24(a)(1) at Sampling Point 104. The permittee is not required to monitor for these pollutants at Sampling Point 104. The permittee has demonstrated through sampling and other technical factors that the pollutants are not present in the discharge.

2.5.1 Change of Any Processes, Operating Conditions, or Chemistry

If the permittee changes any processes, operating conditions, or chemistry at the facility that may result in the presence of the chlorinated phenolic compounds, dioxins, or furans in the discharge at the in-plant Sampling Point 104, the permittee must comply with the following conditions if the permittee wishes to continue the monitoring waiver:

1) Notify the department of the planned change in accordance with Section 7.2.8; and
2) Perform an initial test of the discharge at Sampling Point 104 to determine the presence of the chlorinated phenolic compounds, dioxins, or furans. The permittee shall submit these results to the department.

If chlorinated phenolic compounds, dioxins, or furans are present in the discharge, the monitoring waiver is void and the permittee shall continue to monitor for these pollutants at Sampling Point 104. The department will make this determination in a written response to the submitted planned change notice.

2.5.2 Term of the Monitoring Waiver

This Waiver is only valid for the term of the permit.

2.5.3 Reapplication of the Monitoring Waiver

The permittee must reapply for the monitoring waiver when applying for a reissued permit. The request shall be submitted with the permit application. The request shall include a certification statement from the permittee that states:

> *The processes, operation conditions, and chemistry used at the facility is unchanged from that presented during the monitoring waiver demonstration. We certify that chlorinated phenolic compounds, dioxins, and furans are not present in the discharge at the in-plant Sampling Point 104 without dilution.*

2.5.4 Existing Certification Processes

Monitoring waivers cannot be requested for chloroform as the regulations in 40 CFR 122.44(a)(2) do not supersede certification processes and requirements already established in existing effluent limitations guidelines and standards for chloroform.

3 Surface Water Requirements

3.1 Sampling Point(s)

The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)**
002	At Sampling Point 002, final effluent from the Wastewater Reclamation Center shall be sampled prior to discharge to the Wisconsin River via Outfall 002. Outfall 002 is submerged and located just north of the WRC at 44° 20' 0" N 89° 53' 0" W.
006	At Sampling Point 006, noncontact cooling waters (No. 6 Turbine condenser, chlorine dioxide plant chiller and other sources) shall be sampled after mixing, but prior to discharge to the Wisconsin River via Outfall 006. Outfall 006 is located below the Nekoosa Mill at 44° 18' 45" N 89° 53' 45" W.
008	At Sampling Point 008 (NK COLLECTION TANK OVERFLOW), the Nekoosa mill's main collection tank emergency overflow shall be sampled prior to discharge to the Wisconsin River via Outfall 008. Outfall 008 is located at the Nekoosa Mill.
011	At Sampling Point 011, overflow from treated Nepco Lake water standpipe shall be sampled in such a manner that is representative of the discharge to the Wisconsin River via Outfall 011. Outfall 011 is located east of Nekoosa Dam across the Wisconsin River from the Nekoosa Mill.

3.2 Monitoring Requirements and Effluent Limitations

The permittee shall comply with the following monitoring requirements and limitations.

3.2.1 Sampling Point (Outfall) 002 - WRC EFFLUENT

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD_5, Total	Daily Max	12,039 lbs/day	Daily	Calculated	Effective May through October each year. See Sections 3.2.1.1 and 3.2.1.2
BOD_5, Total	Monthly Avg	6,252 lbs/day	Daily	Calculated	Effective May through October each year. See Sections 3.2.1.1 and 3.2.1.2
BOD_5, Total		mg/L	Daily	24-Hr Flow Prop Comp	Effective May through October each year. See Sections 3.2.1.1 and 3.2.1.2
BOD_5, Total	Daily Max	12,039 lbs/day	2/Week	Calculated	Effective November through April each year. See Sections 3.2.1.1 and 3.2.1.2

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
BOD_5, Total	Monthly Avg	6,252 lbs/day	2/Week	Calculated	Effective November through April each year. See Sections 3.2.1.1 and 3.2.1.2
BOD_5, Total		mg/L	2/Week	24-Hr Flow Prop Comp	Effective November through April each year. See Sections 3.2.1.1 and 3.2.1.2
Suspended Solids, Total	Daily Max	24,263 lbs/day	Weekly	Calculated	See Sections 3.2.1.1 and 3.2.1.3
Suspended Solids, Total	Monthly Avg	13,045 lbs/day	Weekly	Calculated	See Sections 3.2.1.1 and 3.2.1.3
Suspended Solids, Total		mg/L	Weekly	24-Hr Flow Prop Comp	See Sections 3.2.1.1 and 3.2.1.3
pH (Minimum)	Daily Min	5.0 su	Daily	Continuous	See Section 3.2.1.4
pH (Maximum)	Daily Max	9.0 su	Daily	Continuous	See Section 3.2.1.4
pH Total Exceedance Time Minutes	Monthly Total	446 minutes	Daily	Continuous	See Section 3.2.1.4
pH Exceedances Greater Than 60 Minutes	Monthly Total	0 Number	Daily	Continuous	See Section 3.2.1.4
AOX	Daily Max	921 lbs/day	Weekly	Calculated	See Section 3.2.1.5
AOX	Monthly Avg	603 lbs/day	Weekly	Calculated	See Section 3.2.1.5
AOX		mg/L	Weekly	24-Hr Flow Prop Comp	
Phosphorus, Total	Monthly Avg	1.0 mg/L	Weekly	24-Hr Flow Prop Comp	This is an interim MDV limit effective through September 30, 2020. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total	Monthly Avg	0.8 mg/L	Weekly	24-Hr Flow Prop Comp	This is an interim MDV limit effective on October 1, 2020. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total		lbs/day	Weekly	Calculated	

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Phosphorus, Total		lbs/month	Monthly	Calculated	Report the total monthly phosphorus discharged in lbs/month on the last day of the month on the DMR. See MDV section below and Standard Requirements for 'Appropriate Formulas' to calculate the Total Monthly Discharge in lbs/month.
Phosphorus, Total		lbs/yr	Annual	Calculated	Report the sum of the total monthly discharges for the calendar year on the Annual report form. See MDV section below and Standard Requirements for 'Appropriate Formulas' to calculate the Total Annual Discharge in lbs/yr.
Temperature Maximum		deg F	Daily	Continuous	See Section 3.2.1.6
Chlorine, Total Residual		µg/L	Monthly	Grab	Monitor Only - Effective January 1, 2020 through December 31, 2020. See Section 3.2.1.7
Dioxin, 2,3,7,8-TCDD	Monthly Avg	1.2 µg/day	Annual	Calculated	See Sections 3.2.1.8, 3.2.1.9, and 3.2.1.15.
Dioxin, 2,3,7,8-TCDD TE	Monthly Avg	11 µg/day	Annual	Calculated	See Sections 3.2.1.8, 3.2.1.9, and 3.2.1.15.
Mercury, Total Recoverable	Daily Max	15 ng/L	Quarterly	Grab	This is an alternative effluent limitation. See Sections 3.2.1.10 and 3.2.1.11 for more detail.
WLA Previous Day River Flow		cfs	Daily	Continuous	See Section 3.2.1.16
WLA Previous Day River Temp		deg F	Daily	Continuous	See Section 3.2.1.16
WLA Value		lbs/day	Daily	Calculated	See Section 3.2.1.16
WLA Adjusted Value		lbs/day	Daily	Calculated	See Section 3.2.1.16
WLA BOD_5 Discharged	Daily Max - Variable	lbs/day	Daily	Calculated	See Section 3.2.1.16
WLA 5 Day Sum Of WLA Values		lbs/day	Daily	Calculated	See Section 3.2.1.16
WLA 5 Day Sum Of BOD_5 Discharged	Daily Max - Variable	lbs/day	Daily	Calculated	See Section 3.2.1.16

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Acute WET	Daily Max	1.0 TU_a	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Section 3.2.1.13
Chronic WET		TUc	See Listed Qtr(s)	24-Hr Flow Prop Comp	See Section 3.2.1.13
Dioxins & Furans (all congeners)		ng/L	Annual	Composite	As specified in ch. NR 106.115(2), Wis. Adm. Code.
PFAS		µg/L	Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Section below for more information.

3.2.1.1 Combined Loadings for BOD_5 and TSS

The permittee shall only consider the combined loadings of BOD_5 and TSS from Sampling Points 002 and 008 at Sampling Point 002 when there is an overflow event at Sampling Point 008.

3.2.1.2 BOD_5 Sample Frequency

During the months of May through October each year, BOD_5 monitoring is required daily. During the months of November through April each year, BOD_5 monitoring is required twice per week with the following exception. BOD_5 monitoring at Sampling Point 002 during the months of November through April is required on each day that discharge occurs from Outfall 008 (Nekoosa mill's main collection tank emergency overflow).

If the permittee exceeds technology-based effluent limits for BOD_5, fails to submit discharge monitoring reports or is subject to formal enforcement action, the Department may modify this permit without public notice to increase the BOD_5 monitoring frequency during the months of November through April.

3.2.1.3 Total Suspended Solids Sample Frequency

If the permittee exceeds technology-based effluent limits for total suspended solids (TSS), fails to submit discharge monitoring reports or is subject to formal enforcement action, the Department may modify this permit without public notice to increase the TSS monitoring frequency.

3.2.1.4 Continuous pH Monitoring

The permittee shall maintain the pH of this discharge within the range of 5.0 to 9.0 standard units (s.u.) except excursions are permitted subject to the following conditions:

- The pH is monitored continuously;
- The total time during which the pH is outside the range of 5.0 to 9.0 s.u. shall not exceed 446 minutes during any calendar month;
- No individual pH excursion outside the range of 5.0 to 9.0 s.u. shall exceed 60 minutes in duration;
- No individual pH excursion shall be outside the range of 4.0 to 11.0 s.u.; and
- On a daily basis, the permittee shall report the minimum and maximum pH, total time that the pH is outside the range of 5.0 to 9.0 s.u., and the number of pH excursions outside the range of 5.0 to 9.0 s.u. that exceed 60 minutes in duration.

3.2.1.5 Adsorbable Organic Halide (AOX) Monitoring

When testing for AOX, the permittee shall use EPA Method 1650 or any other method that are approved by EPA and provides a minimum level (ML) of 20 µg/L for AOX.

3.2.1.6 Maximum Temperature Monitoring

For monitoring temperature continuously, discrete measurements shall be recorded at intervals of 15 minutes or less during each 24-hour monitoring period pursuant to s. NR 218.04(13), Wis. Report the maximum temperature measured during each 24-hour monitoring period on the monthly Discharge Monitoring Report.

3.2.1.7 Total Residual Chlorine Monitoring

Monitoring for total residual chlorine is required at least monthly. If the permittee adds chlorine, in any form, or any other halogen to its wastewater treatment system on one or more days during a month, the permittee shall make a reasonable effort to monitor for total residual chlorine when the additive is most likely to be present in the treatment system effluent.

3.2.1.8 Dioxins and Furans Test Methods

When testing for dioxin and furan congeners, the permittee shall use EPA Method 1613 or any other method that is approved by EPA and provides a minimum level (ML) of 10 pg/L for 2,3,7,8-TCDD.

3.2.1.9 Composite Sample Type for Dioxins and Furans

When monitoring for dioxin and furan congeners, flow proportional composite samples shall be obtained over a period of time of one to five consecutive days and shall be made up using continuous flow proportional samples or the greater of:

- Twelve nearly equally spaced, flow proportioned grab samples; or
- The total number of grab samples that would be obtained if a minimum of six nearly equally spaced, flow proportional samples are taken on each day of sampling.

3.2.1.10 Mercury Monitoring

The permittee shall collect and analyze all mercury samples according to the data quality requirements of ss. NR 106.145(9) and (10), Wis. Adm. Code. The limit of quantitation (LOQ) used for the effluent and field blank shall be less than 1.3 ng/L, unless the samples are quantified at levels above 1.3 ng/L. The permittee shall collect at least one mercury field blank for each set of mercury samples (a set of samples may include combinations of intake, influent, effluent or other samples all collected on the same day). The permittee shall report results of samples and field blanks to the Department on Discharge Monitoring Reports.

3.2.1.11 Mercury Variance – Implement Pollutant Minimization Plan

This permit contains a variance to the water quality-based effluent limit (WQBEL) for mercury granted in accordance with s. 283.15, Wis. Stats. As conditions of this variance the permittee shall (a) maintain effluent quality at or below the interim effluent limitation specified in the table above, (b) implement mercury pollutant minimization measures, (c) follow the Pollutant Minimization Plan and (d) perform the actions listed in the compliance schedule. See the Schedules section herein.

3.2.1.12 Water Treatment Additives

The permittee shall maintain a record of the dosage rate of all approved water treatment additives used on a monthly basis. The approved water treatment additives may be changed during the term of the permit following procedures in the ‘Additives’ subsection of the Standard Requirements.

3.2.1.13 Whole Effluent Toxicity (WET) Testing

Primary Control Water: Wisconsin River

Instream Waste Concentration (IWC): 2.8%

Dilution series: At least five effluent concentrations and dual controls must be included in each test.

- **Acute:** 100, 50, 25, 12.5, 6.25% and any additional selected by the permittee.
- **Chronic:** 100, 30, 10, 3, 1% and any additional selected by the permittee.

WET Testing Frequency:

Acute tests shall be conducted once each year in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Acute:** January through March of 2019, April through June of 2020, July through September of 2021, and October through December of 2022.

Acute WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in October through December of 2023.

Chronic tests shall be conducted once each year in rotating quarters in order to collect seasonal information about the discharge. Tests are required during the following quarters.

- **Chronic:** January through March of 2019, April through June of 2020, July through September of 2021, and October through December of 2022.

Chronic WET testing shall continue after the permit expiration date (until the permit is reissued) in accordance with the WET requirements specified for the last full calendar year of this permit. For example, the next test would be required in October through December of 2023.

Testing: WET testing shall be performed during normal operating conditions. Permittees are not allowed to turn off or otherwise modify treatment systems, production processes, or change other operating or treatment conditions during WET tests.

Reporting: The permittee shall report test results on the Discharge Monitoring Report form, and also complete the "Whole Effluent Toxicity Test Report Form" (Section 6, "*State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition*"), for each test. The original, complete, signed version of the Whole Effluent Toxicity Test Report Form shall be sent to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707-7921, within 45 days of test completion. The Discharge Monitoring Report (DMR) form shall be submitted electronically by the required deadline.

Determination of Positive Results: An acute toxicity test shall be considered positive if the Toxic Unit - Acute (TU_a) is greater than 1.0 for either species. The TU_a shall be calculated as follows: $TU_a = 100 \div LC_{50}$. A chronic toxicity test shall be considered positive if the Toxic Unit - Chronic (TU_c) is greater than 36 for either species. The TU_c shall be calculated as follows: $TU_c = 100 \div IC_{25}$.

Additional Testing Requirements: Within 90 days of a test which showed positive results, the permittee shall submit the results of at least 2 retests to the Biomonitoring Coordinator on "Whole Effluent Toxicity Test Report Forms". The 90-day reporting period shall begin the day after the test which showed a positive result. The retests shall be completed using the same species and test methods specified for the original test (see the Standard Requirements section herein).

3.2.1.14 MDV (Multi-Discharger Variance) Requirements

Optimization: The permittee shall continue to optimize performance to control phosphorus discharges in accordance with s. 283.16(6), Wis. Stats. See the Schedules section for optimization requirements.

Watershed Provisions: The permittee is required to implement watershed measures to reduce the amount of phosphorus entering the receiving water. The permittee has selected the following approved watershed measure.

Payment to County for Phosphorus Reduction: The permittee shall make payments for phosphorus reduction to the county or counties approved by the Department per s. 283.16(8), Wis. Stats. The permittee shall make a total payment by March 1 of each year in the amount equal to the per pound amount of $52.02 times the number of pounds by which the effluent phosphorus discharged during the previous year exceeded the permittee's target value or $640,000, whichever is less. The target value is 100 lbs/day per s. 283.16(1)(h), Wis. Stats., and is applicable during the months that the MDV is in effect. The MDV is in effect year-round. Refer to the Schedules section for the scheduled annual requirements.

Annual Payment Calculation: The annual payment is equal to the phosphorus load that exceeds the target value multiplied by $52.02 per pound. Use the steps shown below to calculate the annual payment. In addition, the Department shall send a statement to the permittee specifying total payment due to the participating counties each year in accordance with the Schedules section.

Annual Payment = [Annual Phosphorus Load – Annual Target Load] × Price Per Pound

Calculation Steps:

●Calculate pounds of phosphorus discharged for each month:

Monthly Phosphorus Load (lbs/month) = Total Monthly Flow (MG) × Monthly Avg. TP effluent conc. (mg/L) × 8.34

●Sum the lbs/month discharged for the months of January to December to calculate the annual phosphorus load:

Annual Phosphorus Load (lbs/year) = ∑ [Monthly Phosphorus Load (lbs/month)]

●Calculate the Target Load (lbs/month) for each month:

Target Value = 100 lbs/day (Final Monthly Average Phosphorus Limit):

Monthly Target Load (lbs/month) = Monthly Average Phosphorus Limit (lbs/day) × Number of Days in the Month

●Sum the lbs/months for the months of January to December to calculate the Annual Target Load:

Annual Target Load (lbs/year) = ∑ [Monthly Target Load (lbs/month)]

●Calculate the annual payment:

Annual Payment ($) = [Annual Phosphorus Load – Annual Target Load] × Price Per Pound

3.2.1.15 (2,3,7,8-TCDD TE)

The permittee shall demonstrate compliance with the monthly average effluent limit for 2,3,7,8-TCDD TE by using the 2,3,7,8-TCDD toxicity equivalence concentration and the effluent flow rate. The permittee shall use the following equation to calculate the 2,3,7,8-TCDD toxicity equivalence concentration:

$$(TEC)_{tcdd} = \sum (C)_x \, (TEF)_x \, (BEF)_x$$

where:

$(TEC)_{tcdd}$ = 2,3,7,8-TCDD toxicity equivalence concentration in the effluent;
$(C)_x$ = concentration of congener "x" in the effluent;
$(TEF)_x$ = toxicity equivalency factor for congener "x"; and
$(BEF)_x$ = bioaccumulation equivalency factor for congener "x."

When a congener is not detected, a zero may be used in the above equation for the concentration of the congener.

The toxicity and bioaccumulation equivalency factors provided in Table 1 shall be used in the calculation.

Table 1. Toxicity and Bioaccumulation Equivalency Factors

Congener	TEF	BEF
2,3,7,8-TCDD	1.0	1.0
1,2,3,7,8-PeCDD	0.5	0.9
1,2,3,4,7,8-HxCDD	0.1	0.3
1,2,3,6,7,8-HxCDD	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.05
OCDD	0.001	0.01
2,3,7,8-TCDF	0.1	0.8
1,2,3,7,8-PeCDF	0.05	0.2
2,3,4,7,8-PeCDF	0.5	1.6
1,2,3,4,7,8-HxCDF	0.1	0.08
1,2,3,6,7,8-HxCDF	0.1	0.2
1,2,3,7,8,9-HxCDF	0.1	0.6
2,3,4,6,7,8-HxCDF	0.1	0.7
1,2,3,4,6,7,8-HpCDF	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.4
OCDF	0.001	0.02

3.2.1.16 Waste Load Allocation Requirements

Each year during the months of May through October the total daily discharge of BOD_5 from Outfalls 002 and 008 is limited to a maximum of 12,039 lbs/day and the following wasteload allocated water quality related effluent limitations.

Definitions:

- Flow in the following waste load allocation tables shall be defined as the daily average flow value derived from continuous river flow monitoring data for the Wisconsin River collected at the Biron Dam. If such flow data is unavailable for any day, the daily average flow value shall be derived from continuous river flow monitoring data for the Wisconsin River collected at the Centralia Dam. average flow values reported by the Wisconsin Valley Improvement Company for the Biron Dam and Centralia Dam locations are acceptable.
- Temperature in the following waste load allocation tables shall be defined as the daily average temperature value derived from continuous river temperature monitoring data for the Wisconsin River collected at the Wisconsin Rapids Dam. If such temperature data is unavailable for any day, the daily average temperature value shall be derived from continuous river temperature monitoring data for the Wisconsin River collected at the Biron Dam. Daily average temperature values reported by the Wisconsin Valley Improvement Company for the Wisconsin Rapids Dam and Biron Dam locations are acceptable.
- Point source allocation values (pounds per day BOD_5) in the following waste load allocation tables represent water quality related effluent limitations. The flow and temperature conditions used to

determine a point source allocation value for a given day shall be the representative measurements of the flow and temperature of the previous day.

Determination of Effluent Limitations: For the purposes of determining compliance with the wasteload allocated water quality related effluent limitations, the following conditions shall be met:

- The sum of the actual daily discharges of BOD_5 for any 5-consecutive-day period shall not exceed the sum of the daily point source allocation values for the same 5-consecutive-day period.
- For any one-day period, the actual discharge of BOD_5 shall not exceed 120.5% of the point source allocation value for that day.

Monitoring Requirements: Flow and temperature monitoring of the Wisconsin River and flow and BOD_5 monitoring at Sampling Point 002 (Wastewater Reclamation Center effluent) shall be performed on the same schedule. For example, Wisconsin Valley Improvement Company provides flow and temperature data for the 24-hour period beginning at 7:00 a.m. each day. If the permittee uses Wisconsin Valley Improvement Company's river flow and temperature data, the permittee must begin collecting 24-hour composite samples for BOD_5 at 7:00 a.m. each day and must total effluent flow over the 24-hour period beginning and ending at 7:00 a.m. This requirement does not preclude the definition of point source allocation value, which requires the previous day's river temperature and flow to be used to derive the day's point source allocation value.

Reporting Requirements: During the months of May through October inclusive, the permittee shall report the following:

- River flow (cfs);
- Daily river temperature (°F);
- Point source allocation value (lbs BOD_5 per day);
- Adjusted point source allocation values (percent adjustment factor multiplied by the point source allocation value) (lbs BOD_5 per day)
- Actual daily discharge value of BOD_5 (lbs BOD_5 per day);
- Number of times that the actual daily discharge value of BOD_5 exceeds the daily adjusted point source waste load allocation value;
- Sum of the actual daily discharge values of BOD_5 (lbs BOD_5) for each 5-consecutive-day period (present day's discharge plus the four-previous day's discharge);
- Sum of the daily point source waste load allocation values (lbs BOD_5) for each 5-consecutive-day period (present day's discharge plus the four-previous day's discharge); and
- Number of times that the sum of actual daily discharge values of BOD_5 exceeds the sum of daily point source waste load allocation values.

Point Source Allocation Values: Point source allocation values are provided in the following tables:

Table 2. Point Source Waste Load Allocated Values for May and June (lbs BOD5 per day)

Temperature (previous day average in °F)	Flow at Biron Dam (previous day average in cfs)									
	0 TO 999	1000 TO 1199	1200 TO 1499	1500 TO 1999	2000 TO 2499	2500 TO 2999	3000 TO 3999	4000 TO 4999	5000 TO 5999	6000 OR MORE
≥82	6882	8213	10594	14765	20173	26242	27164	52819	60746	60746
78 TO 81	6882	8558	11176	15810	22076	28938	29703	59820	60746	60746
74 TO 77	6882	8898	11802	17028	24127	32034	32912	60746	60746	60746
70 TO 73	6882	9504	12709	18482	26695	36220	37231	60746	60746	60746

Temperature (previous day average in °F)	Flow at Biron Dam (previous day average in cfs)									
	0 TO 999	1000 TO 1199	1200 TO 1499	1500 TO 1999	2000 TO 2499	2500 TO 2999	3000 TO 3999	4000 TO 4999	5000 TO 5999	6000 OR MORE
66 TO 69	7113	11146	14908	21760	31739	43359	44423	60746	60746	60746
62 TO 65	8691	13601	18216	26912	39543	54407	55846	60746	60746	60746
58 TO 61	11062	17338	23387	34746	51735	60746	60746	60746	60746	60746
54 TO 57	14784	23358	31882	47031	60746	60746	60746	60746	60746	60746
50 TO 53	20799	33479	46208	60746	60746	60746	60746	60746	60746	60746
46 TO 49	31137	50537	60746	60746	60746	60746	60746	60746	60746	60746
42 TO 45	49935	60746	60746	60746	60746	60746	60746	60746	60746	60746
≤41	60746	60746	60746	60746	60746	60746	60746	60746	60746	60746

Table 3. Point Source Waste Load Allocated Values for July and August (lbs BOD5/day)

Temperature (previous day average in °F)	Previous Day Average Flow at Biron Dam (cfs)									
	0 TO 999	1000 TO 1199	1200 TO 1499	1500 TO 1999	2000 TO 2499	2500 TO 2999	3000 TO 3999	4000 TO 4999	5000 TO 5999	6000 OR MORE
≥ 82	6882	6882	6882	8622	12354	16821	17353	36974	51094	58671
78 TO 81	6882	6882	6882	10086	14789	20360	21036	45547	60746	60746
74 TO 77	6882	6882	7848	11787	17575	24363	25009	55866	60746	60746
70 TO 73	6882	6882	8972	13725	20681	28894	29801	60746	60746	60746
66 TO 69	6882	8242	11388	17294	26035	36353	37374	60746	60746	60746
62 TO 65	6882	10796	14849	22564	33957	47564	48979	60746	60746	60746
≤61	8928	14582	20074	30624	46154	60746	60746	60746	60746	60746

Table 4. Point Source Waste Load Allocated Values for September and October (lbs BOD5/day)

Temperature (previous day average in °F)	Flow at Biron Dam (previous day average in cfs)									
	0 TO 999	1000 TO 1199	1200 TO 1499	1500 TO 1999	2000 TO 2499	2500 TO 2999	3000 TO 3999	4000 TO 4999	5000 TO 5999	6000 OR MORE
≥82	6882	6882	6882	6882	7404	10776	11205	25680	36097	41643
78 TO 81	6882	6882	6882	6882	9347	13601	14075	33030	46893	54362
74 TO 77	6882	6882	6882	7074	11634	17023	17585	42654	58873	60746
70 TO 73	6882	6882	6882	8947	14572	21243	21834	53041	60746	60746
66 TO 69	6882	6882	7370	12280	19527	28145	29047	60746	60746	60746
62 TO 65	6882	7044	10466	17003	26740	38291	39286	60746	60746	60746
58 TO 61	6882	10293	15016	24117	37655	53795	55393	60746	60746	60746
54 TO 57	8587	15401	22234	35382	55146	60746	60746	60746	60746	60746

Temperature (previous day average in ºF)	Flow at Biron Dam (previous day average in cfs)									
	0 TO 999	1000 TO 1199	1200 TO 1499	1500 TO 1999	2000 TO 2499	2500 TO 2999	3000 TO 3999	4000 TO 4999	5000 TO 5999	6000 OR MORE
50 TO 53	13532	23885	34381	54683	60746	60746	60746	60746	60746	60746
46 TO 49	21958	38463	55176	60746	60746	60746	60746	60746	60746	60746
42 TO 45	37364	60746	60746	60746	60746	60746	60746	60746	60746	60746
≤41	60746	60746	60746	60746	60746	60746	60746	60746	60746	60746

3.2.1.17 Total Maximum Daily Load (TMDL) Limitations

Approved TMDL: The Wisconsin River TMDL Waste Load Allocation (WLA) for total phosphorus was approved by the U.S. Environmental Protection Agency on April 26, 2019 and the site-specific criteria (SSC) in Appendix K were adopted by rule in s. NR 102.06(7), Wis. Adm. Code, on June 1, 2020, and approved by the U.S. Environmental Protection Agency (USEPA) on July 9, 2020. The approved TMDL SSC WLA limit for phosphorus is 18,088 lbs/yr, which equates to calculated phosphorus mass limits of 100 lbs/day as a monthly average. For this permit term, the permittee has applied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on February 6, 2017 until February 5, 2027. The permittee was conditionally approved for the MDV on July 27, 2017.

3.2.1.18 PFAS Sampling

Beginning May 1, 2021, the permittee is required to sample the final effluent annually at Outfall 002 for perfluoroalkyl and polyfluoroalkyl substances (PFAS) listed in and using the protocols in the department's PFAS Update-Default Reporting List for Sampling and Analysis Requirements and Expectations (current version dated March 1, 2021).

3.2.2 Sampling Point (Outfall) 006 - NK CLEAR SEWER NCCW

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
Temperature Maximum	Daily Max	120 deg F	Daily	Continuous	Daily maximum limit of 120 deg F is effective for all months except for August and September. See Section 3.2.2.1.
Chlorine, Total Residual	Daily Max	38 µg/L	Monthly	Grab	See Section 3.2.2.2
Chlorine, Total Residual	Monthly Avg	38 µg/L	Monthly	Grab	See Section 3.2.2.2

3.2.2.1 Maximum Temperature Monitoring

For monitoring temperature continuously, discrete measurements shall be recorded at intervals of 15 minutes or less during each 24-hour monitoring period pursuant to s. NR 218.04(13), Wis. Adm. Code. Report the maximum temperature measured during each 24-hour monitoring period on the monthly Discharge Monitoring Report.

3.2.2.2 Total Residual Chlorine Reporting and Compliance

Test methods for total residual chlorine, approved in ch. NR 219 - Table B, Wis. Adm. Code, normally achieve a limit of detection of about 20 to 50 micrograms per liter and a limit of quantitation of about 100 micrograms per liter. When dechlorination is in use, reporting of test results and compliance with effluent limitations for chlorine residual shall be as follows:

- Sample results which show no detectable levels are in compliance with the limit. These test results shall be reported on Wastewater Discharge Monitoring Report Forms as "< 100 µg/L". (Note: 0.1 mg/L converts to 100 µg/L)
- Samples showing detectable traces of chlorine are in compliance if measured at less than 100 µg/L, unless there is a consistent pattern of detectable values in this range. These values shall also be reported on Wastewater Discharge Monitoring Report Forms as "< 100 µg/L." The facility operating staff shall record actual readings on logs maintained at the plant, shall take action to determine the reliability of detected results (such as re-sampling and/or calculating dosages), and shall adjust the chemical feed system if necessary to reduce the chances of detects.
- Samples showing detectable levels greater than 100 µg/L shall be considered as exceedances and shall be reported as measured.
- To calculate average or mass discharge values, a "0" (zero) may be substituted for any test result less than 100 µg/L. values shall then be compared directly to the average or mass limitations to determine compliance.

3.2.2.3 Water Treatment Additives

The permittee shall maintain a record of the dosage rate of all approved water treatment additives used on a monthly basis. The approved water treatment additives may be changed during the term of the permit following procedures in the 'Additives' subsection of the Standard Requirements.

3.2.3 Sampling Point (Outfall) 008 - NK COLLECTION TANK OVERFLOW

Monitoring Requirements and Effluent Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Per Occurrence	Estimated	See Section 3.2.3.1
BOD_5, Total		lbs/day	Per Occurrence	Grab	See Section 3.2.1.1
Suspended Solids, Total		lbs/day	Per Occurrence	Grab	See Section 3.2.1.1
pH Field	Daily Max	9.0 su	Per Occurrence	Grab	
pH Field	Daily Min	5.0 su	Per Occurrence	Grab	

3.2.3.1 Flow Estimate

Flow rate shall be estimated per discharge occurrence at Sampling Point 008 (NK Collection Tank Overflow). Estimated is defined in s. NR 218.04(15), Wis. Adm. Code.

3.2.3.2 Mill Collection Tank Overflows

Discharges that bypass the wastewater treatment system by overflowing the Nekoosa mill main collection tank and discharge through the emergency overflow outflow (Outfall 008) shall be limited to short-term discharges caused by unavoidable breakdowns, power failure or other reasons specified in Section 7.2.2.

3.2.3.3 Sample Type and Frequency of Mill Collection Tank Overflows

Overflow discharges from the mill collection tank shall be sampled per discharge occurrence at Sampling Point 008 and characterized by grab samples of the overflowing wastewater or by estimates based on grab samples of the treatment plant influent taken at Sampling Point 106.

3.2.3.4 Reporting of Mill Collection Tank Overflows

The permittee shall comply with the reporting requirements in Sections 7.2.2 and 7.2.3 of this permit when an overflow occurs.

3.2.3.5 Overflow Reduction Actions

If there are more than 3 overflow events within a 12-month period, (beginning on the date of any event exceeding 3 events within a 12-month period) the permittee shall take the following overflow reduction actions:

(a) Within one month, submit an overflow reduction plan to the department describing the actions that will be taken to reduce or eliminate overflow events; and

(b) Within three months complete all actions contained in the overflow reduction plan.

3.2.4 Sampling Point (Outfall) 011 - NEPCO LAKE STANDPIPE OVERFLOW

3.2.4.1 Chlorine Certification Statement

The permittee shall submit and certify by written letter per permit cycle at Sampling Point 011 that:

> *The facility did not use any chlorine-containing compounds at the Nepco Lake pump house prior to the standpipe overflow via Outfall 011.*

The signature block shall include the following statement:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

The certification statement shall be signed by a responsible executive or municipal officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2., Wis. Adm. Code.

4 Land Treatment Requirements

4.1 Sampling Point(s)

The discharge(s) shall be limited to the waste type(s) designated for the listed sampling point(s).

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, Waste Description/Sample Contents and Treatment Description (as applicable)**
005	At sampling point 005, the permittee shall take representative samples of the alum sludge filtrate of dredged alum sludge placed in the Nepco Lake alum sludge dewatering basin. This sample will be used as the representative sample of the groundwater discharge from the Nepco Lake alum sludge dewatering basin via Outfall 005. The Nepco Lake alum sludge dewatering basin is located in the SW 1/4, SW 1/4, Section 31, T22N, R6E, Village of Port Edwards, Wood County.

4.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

4.2.1 Sampling Point (Outfall) 005 - NEPCO LAKE ALUM SLUDGE BASIN

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
pH Field		su	Per Occurrence	Grab	Sample per dredging event of the alum settling basin.
Aluminum Dissolved		mg/L	Per Occurrence	Grab	Sample per dredging event of the alum settling basin.
Manganese Dissolved		mg/L	Per Occurrence	Grab	Sample per dredging event of the alum settling basin.
Nitrogen, Nitrite + Nitrate (as N) Dissolved		mg/L	Per Occurrence	Grab	Sample per dredging event of the alum settling basin.

5 Land Application Requirements

5.1 Sampling Point(s)

The discharge(s) shall be limited to land application of the waste type(s) designated for the listed sampling point(s) on Department approved land spreading sites or by hauling to another facility.

Sampling Point Designation	
Sampling Point Number	**Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)**
010	At Sampling Point 010, combined primary and secondary cake sludge from the Wastewater Reclamation Center shall be sampled after thickening and prior to land application via Outfall 010. Outfall 010 is located at Department approved land application sites.

5.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

5.2.1 Sampling Point (Outfall) 010 - WRC SLUDGE

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Annual	Grab Comp	
pH Field		su	Annual	Grab Comp	See Section 5.5.4.
Nitrogen, Total Kjeldahl		Percent	Annual	Grab Comp	See Section 5.5.1
Nitrogen, Ammonia (NH_3-N) Total		Percent	Annual	Grab Comp	
Phosphorus, Total		Percent	Annual	Grab Comp	
Phosphorus, Water Extractable		% of Tot P	Annual	Grab Comp	
Potassium, Total Recoverable		Percent	Annual	Grab Comp	
Cadmium Dry Wt		mg/kg	Annual	Grab Comp	See Sections 5.5.2 and 5.5.3
Copper Dry Wt		mg/kg	Annual	Grab Comp	See Section 5.5.2
Lead Dry Wt		mg/kg	Annual	Grab Comp	See Section 5.5.2
Nickel Dry Wt		mg/kg	Annual	Grab Comp	See Section 5.5.2
Zinc Dry Wt		mg/kg	Annual	Grab Comp	See Section 5.5.2
Chloride		Percent	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Sulfate, Total		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Aluminum Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Barium, Total Recoverable		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Boron Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
					the calendar year of 2021.
Calcium Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Chromium Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Iron Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Magnesium Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Manganese Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Molybdenum Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Sodium Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Strontium Dry Wt		mg/kg	Once	Grab Comp	Sampling only required in the calendar year of 2021.
Dioxin, 2,3,7,8-TCDD TE		ng/kg	Once	Calculated	See Section 5.5.6. Sampling only required in the calendar year of 2021.
PFAS Dry Wt		ng/kg	Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Section below for more information.
Dioxins & Furans (all congeners)		ng/kg	Once	Grab Comp	As specified in ch. NR 106.115(2), Wis. Adm. Code.
Priority Pollutant Scan			Once	Grab	As specified in ch. NR 215.03 (1-6), Wis. Adm. Code (excluding asbestos).

5.2.1.1 Dry Weight Basis

All sludge results shall be reported on a dry weight basis, except pH field.

5.2.1.2 Test Methods

For those parameters not listed in Table EM of ch. NR 219, Wis. Adm. Code, the permittee may use SW-846 methods as listed in Tables B, C, and D of ch. NR 219. The permittee may use EPA Method 7780 for strontium. The permittee may also use any other test method that is approved by EPA and the Department prior to use.

5.2.1.3 Sample Type for Dioxin and Furan Congeners

The permittee may use a composite of daily sludge samples that are obtained over a period of one to five days when monitoring for dioxins and furans.

5.2.1.4 Test Methods for Dioxin and Furan Congeners

When testing for dioxin and furan congeners in the sludge, the permittee shall use either EPA Method 1613B, SW-846 Test Method 8290A, or any other method that is approved by EPA.

5.2.1.5 Priority Pollutant Scan Frequency

The permittee is only required to monitor and sample for Priority Pollutants in the calendar year of 2021.

5.2.1.6 PFAS Sampling

Beginning May 1, 2021, the permittee is required to sample the sludge annually at Outfall 010 for perfluoroalkyl and polyfluoroalkyl substances (PFAS) listed in and using the protocols in the department's PFAS Update-Default Reporting List for Sampling and Analysis Requirements and Expectations (current version dated March 1, 2021).

5.3 Beneficial and Non-Detrimental

Only sludges that have been exempted from the solid waste landspreading requirements of ch. NR 518, Wis. Adm. Code, that do not have detrimental effects on the soil, crops, or groundwater, and that have been shown to have beneficial properties as a soil conditioner or fertilizer may be spread on the land. A WPDES permit is required for spreading of sludge on land.

5.4 Application Site Restrictions

In addition to complying with the sludge application site criteria as specified in s. NR 214.18(2), Wis. Adm. Code, the permittee shall comply with the following site location restrictions:

- Sludge shall not be applied within 1,200 feet of a public water supply when the sludge contains detectable concentrations of either 2,3,7,8-TCDD or 2,3,7,8-TCDF.
- Sludge with a TDE concentration greater than 10 ng/kg (based on the previous annual average) shall not be applied within the range of Prairie Chickens (*Tymanuchus cupido*), or any other threated or endangered wildlife species, unless the sludge is incorporated into the soil within 21 days of application.

5.5 Application Rate Limitations

The permittee shall comply with the following sludge application rate limitations. Additional sludge application limitations are provided in the Standard Requirements section of the permit.

5.5.1 Annual Nitrogen Loading Limitations

Section NR 214.18(4), Wis. Adm. Code specifies that the total pounds of nitrogen land applied per acre per year shall be limited to the nitrogen needs of the cover crop (based on a reliable reference such as: *A2809 Nutrient Application Guidelines for Field, Vegetable and Fruit Crops in Wisconsin*, from UW-Ext., http://www.soils.wisc.edu/extension/pubs/A2809.pdf) minus any other nitrogen added to the land application site, including fertilizer or manure. Nitrogen applied can be calculated on the basis of plant available nitrogen, as long as the release of nitrogen from the organic material is credited to future years. This permit requires that the Total Kjeldahl Nitrogen calendar year application amount shall not exceed 165 pounds per acre per year, except when alternate numerical nitrogen loading limits (consistent with the above section of ch. NR 214, Wis. Adm. Code) are approved in writing via the Department's land application management plan approval. Calculate nitrogen loading as follows ("TKN" represents "Total Kjeldahl Nitrogen"):

$$\frac{\text{lbs of TKN}}{\text{Acre}} = \frac{\text{(lbs of wet solids) x (\% total solids) x (\% TKN)}}{\text{(acres land applied) x 100 x 100}}$$

If plant available nitrogen is not taken into consideration, an alternative nitrogen loading rates may be used for the industrial sludge when the department approves a mineralization rate study that appropriately shows the amount of nitrogen available in the first and subsequent years of the industrial sludge. This approval shall be incorporated into the land application management plan and approved by the department in writing.

This alternative nitrogen application rate must not exceed the crop nitrogen requirement and shall not exceed 165 lbs of plant available nitrogen without receiving written department approval prior to land application.

The alternative nitrogen application rate shall be calculated based on equations and mineralization rates in the management plan or as otherwise approved by the Department in writing.

5.5.2 Metals Loading Limitations

The amount of cadmium, copper, lead, nickel and zinc spread at any site shall not exceed the maximum cumulative amount specified in Table 4 of ch. NR 214.18(4)(g), Wis. Adm. Code, over the lifetime of the site. The cation exchange capacity of the soil at a site shall be determined by a laboratory or estimated using standard test methods or acceptable agricultural practices. The representative concentration of each metal in the sludge shall be used to determine the value of the metal loading at each site per land application event. When calculating metal loadings, the permittee may substitute a zero for any metal that is not detected using the appropriate analysis method. The permit shall calculate the loading for each metal per site per land application event as follows:

$$\frac{\text{lbs of Each Metal}}{\text{Acre}} = \frac{\text{(lbs of wet solids) x (\% total solids)}}{\text{(acres land applied) x 100}} \times \frac{\text{(mg/kg metal)}}{1{,}000{,}000}$$

Each calculated metal loading per site shall be summed together with past land application events for that site to calculate lifetime cumulative metal loadings.

5.5.3 Cadmium Loading Limitation

No more than 0.45 pounds per acre of cadmium may be spread annually on land used for production of food chain crops.

5.5.4 Soil pH

The pH of the sludge and soil mixture shall be 6.5 or higher at the time the sludge is spread, except that the soil pH may be less than 6.5 if the average sludge cadmium (over the previous four quarters) concentration is 2 mg/kg (dry weight) or less.

5.5.5 PCB Discharge Limitations

Sludge containing concentrations of PCB's equal to or greater than 10 mg/kg (dry weight) shall be incorporated into the soil when applied to land used for producing animal feed, including pasture crops for animals raised for the purpose of producing milk. The department may allow surface application of the sludge if it is assured that the PCB content is less than 0.2 mg/kg (actual weight) in animal feed or less than 1.5 mg/kg (fat basis) in milk from animals consuming the feed as specified in s. ch. NR 214.18(4)(h), Wis. Adm. Code.

5.5.6 Calculation of Dioxin Toxicity Equivalence (TEQ)

When the testing for the seventeen 2,3,7,8-substituted dioxin and furan congeners in the sludge, all congeners results should be calculated and converted to TCDD TEQ. The sludge concentration shall not exceed 80 ng/kg TCDD TEQ. The permittee shall report the calculated sludge TCDD TEQ as 2,3,7,8-TCDD toxicity equivalence concentration or 2,3,7,8-TCDD TE on the discharge monitoring report.

- TCDD TEQ for sludge shall be calculated as follows:

$$\text{TCDD TEQ (ng/kg)} = \sum C_x \times TEF_x$$

Where: C_x = Concentration of congener "x" in units of ng/kg. When a congener is not detected, a zero may be used in the above equation for the concentration of the congener.

TEFx = Toxicity equivalency factor for congener "x" is provided in Table 1:

Table 1. Toxicity Equivalency Factors (TEFs)

Dioxin Congener	TEF	Furan Congener	TEF
2,3,7,8-TCDD	1	2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDD	1	1,2,3,7,8-PeCDF	0.03
1,2,3,4,7,8-HxCDD	0.1	2,3,4,7,8-PeCDF	0.3
1,2,3,6,7,8-HxCDD	0.1	1,2,3,4,7,8- HxCDF	0.1
1,2,3,7,8,9-HxCDD	0.1	1,2,3,6,7,8- HxCDF	0.1
1,2,3,4,6,7,8-HpCDD	0.01	1,2,3,7,8,9- HxCDF	0.1
OCDD	0.0003	2,3,4,6,7,8- HxCDF	0.1
		1,2,3,4,6,7,8-HpCDF	0.01
		1,2,3,4,7,8,9- HpCDF	0.01
		OCDF	0.0003

5.6 Recordkeeping and Reporting Requirements

The permittee shall comply with the following recordkeeping and reporting requirements. Additional reporting requirements are provided in the Standard Requirements section of this permit.

5.6.1 Daily Log

Land application activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under "Records Retention" in the Standard Requirements section. The total daily sludge quantity may be determined by actual measurement of the amount of sludge in the hauling vehicles, or by calibration of the truck box or roll-off containers used to haul sludge times the number of trips for the day. At the minimum, the log sheets shall include information provided in Table 2.

Table 2. Minimum Content of Log Sheets

Parameters		Units	Sample Frequency	Sample Type
DNR Site Number(s)		Number	Daily	Log
Acres Applied		Acres	Daily	Log
Application Rate		Tons/Acre/Day	Daily	Calculated

5.6.2 Annual Land Application Report (Form 3400-55)

The annual totals for the land application loadings of sludge to field spreading sites shall be submitted electronically on the Annual Land Application Report Form 3400-055 by January 31 each year whether or not waste is land applied. Amounts of waste shall be reported as dry weight. Following submittal of the electronic Land Application Report

Form 3400-55, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive officer, manager, partner or proprietor or duly authorized representative in accordance with s. NR 205.07(1)(g), Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate, and complete. The information required to be reported on Form 3400-55 is provided in Table 3.

Table 3. Land Application Loadings Information Reported Annually

Parameters	Units	Reporting Frequency	Sample Type
DNR Site Number(s)	Number	Annual	-
Facility Site No./Field No.	Number	Annual	-
Landowner	-	Annual	-
Acres Land Applied	Acres	Annual	Total Annual
Total Amount Per Site	Tons (DWB)	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	Pounds/Acre/Year	Annual	Calculated
Amount of Nitrogen from Other Sources	Pounds/Acre/Year	Annual	Total Annual
Crop Code and Year	Code	Annual	-
Nitrogen Recommendation	Pounds/Acre/Year	Annual	Total Annual

6 Schedules

6.1 BMP Implementation and Reporting Schedule

The permittee shall submit BMP reporting dates as specified by section 2.3.7, Monitoring, Corrective Action, and Reporting Requirements in accordance with the following schedule.

Required Action	Due Date
Annual BMP Reports: Submit an annual BMP report. The annual BMP report shall include: A summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. The first annual BMP report is to be submitted by the Due Date.	02/15/2019
Annual BMP Report #2: Submit a second BMP report as defined above.	02/15/2020
Annual BMP Report #3: Submit a third BMP report as defined above.	02/15/2021
Annual BMP Report #4: Submit a fourth BMP report as defined above.	02/15/2022
Annual BMP Report #5: Submit a fifth BMP report as defined above.	02/15/2023
Annual BMP Reports After Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual BMP reports each year by the date specified in Section 2.3.7.	

6.2 Mercury Pollutant Minimization Program

As a condition of the variance to the water quality-based effluent limitation(s) for mercury granted in accordance with s. NR 106.145(6), Wis. Adm. Code, the permittee shall perform the following actions.

Required Action	Due Date
Annual Mercury Progress Reports: Submit an annual mercury progress report. The annual mercury progress report shall: Indicate which mercury pollutant minimization activities or activities outlined in the approved Pollutant Minimization Plan have been implemented; Include an analysis of trends in monthly and annual total effluent mercury concentrations based on mercury sampling; and Include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury. The first annual mercury progress report is to be submitted by the Due Date.	01/31/2019
Annual Mercury Progress Report #2: Submit a mercury progress report as defined above.	01/31/2020
Annual Mercury Progress Report #3: Submit a mercury progress report as defined above.	01/31/2021
Annual Mercury Progress Report #4: Submit a mercury progress report as defined above.	01/31/2022
Final Mercury Report: Submit a final report documenting the success in reducing mercury concentrations in the effluent, as well as the anticipated future reduction in mercury sources and mercury effluent concentrations. The report shall summarize mercury pollutant minimization activities that have been implemented during the current permit term and state which, if any, pollutant minimization activities from the approved pollutant minimization plan were not pursued and why. The report shall include an analysis of trends in monthly and annual total effluent mercury	01/31/2023

Required Action	Due Date
concentrations based on mercury sampling during the current permit term. The report shall also include an analysis of how influent and effluent mercury varies with time and with significant loading of mercury such as loads from industries into the collection system. If the permittee intends to reapply for a mercury variance per s. NR 106.145, Wis. Adm. Code, for the reissued permit, a detailed pollutant minimization plan outlining the pollutant minimization activities proposed for the upcoming permit term shall be submitted along with the final report.	
Annual Mercury Reports After Permit Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual mercury reports each year covering pollutant minimization activities implemented and mercury concentration trends.	

6.3 Water Intake Requirements

The permittee shall submit annual certification statements as specified by section 1.3.3.1, Annual Certification Statement and Report, in accordance with the following schedule.

Required Action	Due Date
Annual Certification Statements and Reports: Submit an annual certification statement and report on the water intake structures. The annual certification shall include a summary of maintenance and operation of water intake structure technologies, a summary of visual or remote inspections conducted, and a summary of any substantial modifications to the operation of any units that will impact cooling water withdrawals or operation of the water intake structure. The first annual certification statement and report is to be submitted by the Due Date.	01/31/2019
Annual Certification Statement #2: Submit a second annual certification statement as defined above.	01/31/2020
Annual Certification Statement #3: Submit a third annual certification statement as defined above.	01/31/2021
Annual Certification Statement #4: Submit a fourth annual certification statement as defined above.	01/31/2022
Annual Certification Statement #5: Submit a fifth annual certification statement as defined above.	01/31/2023
Annual Certification Statements After Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual certification statements each year by the date specified in Section 1.3.3.1.	

6.4 Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L)

This compliance schedule requires the permittee to achieve compliance with the specified MDV interim effluent limit in accordance with s. 283.16(6), Wis. Stats., by the due date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of phosphorus with conclusions regarding compliance.	03/31/2019
Action Plan: Submit an action plan for complying with the specified interim effluent limit. If construction is required, include plans and specifications with the submittal.	09/30/2019
Initiate Actions: Initiate actions identified in the plan.	03/31/2020

Required Action	Due Date
Complete Actions: Complete actions identified in the plan and achieve compliance with the specified interim effluent limit.	09/30/2020

6.5 Phosphorus Schedule - Continued Optimization

The permittee is required to optimize performance to control phosphorus discharges per the following schedule.

Required Action	Due Date
Optimization: The permittee shall continue to implement the optimization plan as previously approved to optimize performance to control phosphorus discharges. Submit a progress report on optimizing removal of phosphorus by the Due Date.	09/30/2019
Progress Report #2: Submit a progress report on optimizing removal of phosphorus.	09/30/2020
Progress Report #3: Submit a progress report on optimizing removal of phosphorus.	09/30/2021
Progress Report #4: Submit a progress report on optimizing removal of phosphorus.	09/30/2022
Progress Report #5: Submit a progress report on optimizing removal of phosphorus.	09/30/2023

6.6 Phosphorus Payment per Pound to County

The permittee is required to make annual payments for phosphorus reductions to the participating county or counties in accordance with s. 283.16(8), Wis. Stats, and the following schedule. The price per pound will be set at the time of permit reissuance and will apply for the duration of the permit.

Required Action	Due Date
Annual Verification of Phosphorus Payment to County: The permittee shall make a total payment to the participating county or counties approved by the Department by March 1 of each calendar year. The amount due is equal to the following: lbs of phosphorus discharged minus the permittee's target value times $52.02 per pound or $640,000, whichever is less. See the payment calculation steps in the Surface Water section. The permittee shall submit Form 3200-151 to the Department by March 1 of each calendar year indicating total amount remitted to the participating counties to verify that the correct payment was made. The first payment verification form is due by the specified Due Date. Note: The applicable Target Value is 100 lbs/day as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is $50.00 adjusted for CPI.	03/01/2019
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2020
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2021
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2022
Annual Verification of Payment #5: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2023

Required Action	Due Date
Continued Coverage: If the permittee intends to seek a renewed variance, an application for the MDV (Multi Discharger Variance) shall be submitted as part of the application for permit reissuance in accordance with s. 283.16(4)(b), Wis. Stats.	
Annual Verification of Payment After Permit Expiration: In the event that this permit is not reissued prior to the expiration date, the permittee shall continue to submit Form 3200-151 to the Department indicating total amount remitted to the participating counties by March 1 each year.	

6.7 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
Land Application Management Plan: Submit an update to the management plan to optimize the land application system performance and demonstrate compliance with ch. NR 214, Wis. Adm. Code and this permit.	12/31/2018

6.8 Annual Cumulative Loadings Report

The permittee shall submit annual cumulative loading report as specified by section 5.7.3, Annual Cumulative Loadings Report, in accordance with the following schedule.

Required Action	Due Date
First Annual Cumulative Loadings Report: The permittee shall report the cumulative total metals loadings, the total annual nitrogen loading, and other applicable loadings at each land application site that received Wastewater Reclamation Center sludge during 2018.	01/31/2019
Second Annual Cumulative Loadings Report: The permittee shall report the cumulative total metals loadings, the total annual nitrogen loading, and other applicable loadings at each land application site that received Wastewater Reclamation Center sludge during 2019.	01/31/2020
Third Cumulative Loadings Report: The permittee shall report the cumulative total metals loadings, the total annual nitrogen loading, and other applicable loadings at each land application site that received Wastewater Reclamation Center sludge during 2020.	01/31/2021
Fourth Annual Cumulative Loadings Report: The permittee shall report the cumulative total metals loadings, the total annual nitrogen loading, and other applicable loadings at each land application site that received Wastewater Reclamation Center sludge during 2021.	01/31/2022
Fifth Annual Cumulative Loadings Report: The permittee shall report the cumulative total metals loadings, the total annual nitrogen loading, and other applicable loadings at each land application site that received Wastewater Reclamation Center sludge during 2022.	01/31/2023
Annual Cumulative Loadings Report After Expiration: In the event that this permit is not reissued on time, the permittee shall continue to submit annual cumulative loadings reports each year by the date specified in Section 5.7.3.	

7 Standard Requirements

NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(3).

7.1 Reporting and Monitoring Requirements

7.1.1 Monitoring Results

Monitoring results obtained during the previous month shall be summarized and reported on a Department Wastewater Discharge Monitoring Report. The report may require reporting of any or all of the information specified below under 'Recording of Results'. This report is to be returned to the Department no later than the date indicated on the form. A copy of the Wastewater Discharge Monitoring Report Form or an electronic file of the report shall be retained by the permittee.

Monitoring results shall be reported on an electronic discharge monitoring report (eDMR). The eDMR shall be certified electronically by a responsible executive or officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included on the Wastewater Discharge Monitoring Report.

The permittee shall comply with all limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even with monthly monitoring. The permittee may monitor more frequently than required for any parameter.

7.1.2 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

7.1.3 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

7.1.4 Reporting of Monitoring Results

The permittee shall use the following conventions when reporting effluent monitoring results:

- Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 0.1 mg/L, report the pollutant concentration as < 0.1 mg/L.
- Pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified.
- For purposes of calculating NR 101 fees, the 2 mg/l lower reporting limits for BOD_5 and Total Suspended Solids shall be considered to be limits of quantitation
- For the purposes of reporting a calculated result, average or a mass discharge value, the permittee may substitute a 0 (zero) for any pollutant concentration that is less than the limit of detection. However, if the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.

7.1.5 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic data records for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application, except for sludge management forms and records, which shall be kept for a period of at least 5 years.

7.1.6 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

7.1.7 Reporting Requirements – Alterations or Additions

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source.
- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification requirement applies to pollutants which are not subject to effluent limitations in the existing permit.
- The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use of disposal sites not reported during the permit application process nor reported pursuant to an approved land application plan. Additional sites may not be used for the land application of sludge until department approval is received.

7.2 System Operating Requirements

7.2.1 Noncompliance Reporting

The permittee shall report the following types of noncompliance by a telephone call to the Department's regional office within 24 hours after becoming aware of the noncompliance:

- any noncompliance which may endanger health or the environment;
- any violation of an effluent limitation resulting from a bypass;
- any violation of an effluent limitation resulting from an upset; and
- any violation of a maximum discharge limitation for any of the pollutants listed by the Department in the permit, either for effluent or sludge.

A written report describing the noncompliance shall also be submitted to the Department as directed at the end of this permit within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.

A scheduled bypass approved by the Department under the 'Scheduled Bypass' section of this permit shall not be subject to the reporting required under this section.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources **immediately** of any discharge not authorized by the permit. **The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at 1-800-943-0003**.

7.2.2 Bypass

Except for a controlled diversion as provided in the 'Controlled Diversions' section of this permit, any bypass is prohibited and the Department may take enforcement action against a permittee for such occurrences under s. 283.89, Wis. Stats. The Department may approve a bypass if the permittee demonstrates all the following conditions apply:

The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities or adequate back-up equipment, retention of untreated wastes, reduction of inflow and infiltration, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance. When evaluating feasibility of alternatives, the department may consider factors such as technical achievability, costs and affordability of implementation and risks to public health, the environment and, where the permittee is a municipality, the welfare of the community served; and

The bypass was reported in accordance with the 'Noncompliance Reporting' section of this permit.

7.2.3 Scheduled Bypass

Whenever the permittee anticipates the need to bypass for purposes of efficient operations and maintenance and the permittee may not meet the conditions for controlled diversions in the 'Controlled Diversions' section of this permit, the permittee shall obtain prior written approval from the Department for the scheduled bypass. A permittee's written request for Department approval of a scheduled bypass shall demonstrate that the conditions for unscheduled

bypassing are met and include the proposed date and reason for the bypass, estimated volume and duration of the bypass, alternatives to bypassing and measures to mitigate environmental harm caused by the bypass. The department may require the permittee to provide public notification for a scheduled bypass if it is determined there is significant public interest in the proposed action and may recommend mitigation measures to minimize the impact of such bypass.

7.2.4 Controlled Diversions

Controlled diversions are allowed only when necessary for essential maintenance to assure efficient operation provided the following requirements are met:

Effluent from the wastewater treatment facility shall meet the effluent limitations established in the permit. Wastewater that is diverted around a treatment unit or treatment process during a controlled diversion shall be recombined with wastewater that is not diverted prior to the effluent sampling location and prior to effluent discharge;

A controlled diversion may not occur during periods of excessive flow or other abnormal wastewater characteristics;

A controlled diversion may not result in a wastewater treatment facility overflow; and

All instances of controlled diversions shall be documented in wastewater treatment facility records and such records shall be available to the department on request.

7.2.5 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training as required in ch. NR 114, Wis. Adm. Code, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

7.2.6 Operator Certification

The wastewater treatment facility shall be under the direct supervision of a state certified operator. In accordance with s. NR 114.53, Wis. Adm. Code, every WPDES permitted treatment plant shall have a designated operator-in-charge holding a current and valid certificate. The designated operator-in-charge shall be certified at the level and in all subclasses of the treatment plant, except laboratory. Treatment plant owners shall notify the department of any changes in the operator-in-charge within 30 days. Note that s. NR 114.52(22), Wis. Adm. Code, lists types of facilities that are excluded from operator certification requirements (i.e. private sewage systems, pretreatment facilities discharging to public sewers, industrial wastewater treatment that consists solely of land disposal, agricultural digesters and concentrated aquatic production facilities with no biological treatment).

7.2.7 Spill Reporting

The permittee shall notify the Department in accordance with ch. NR 706 (formerly NR 158), Wis. Adm. Code, in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations established in this permit, or the spill or accidental release of the material is unregulated in this permit, unless the spill or release of pollutants has been reported to the Department in accordance with s. NR 205.07 (1)(s), Wis. Adm. Code.

7.2.8 Planned Changes

In accordance with ss. 283.31(4)(b) and 283.59, Stats., the permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants. The report shall either be a new permit application, or if the new discharge will not violate the effluent

limitations of this permit, a written notice of the new, different or increased discharge. The notice shall contain a description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on existing waste treatment facilities. Following receipt of this report, the Department may modify this permit to specify and limit any pollutants not previously regulated in the permit.

7.2.9 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall, to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

7.3 Surface Water Requirements

7.3.1 Permittee-Determined Limit of Quantitation Incorporated into this Permit

For pollutants with water quality-based effluent limits below the Limit of Quantitation (LOQ) in this permit, the LOQ calculated by the permittee and reported on the Discharge Monitoring Reports (DMRs) is incorporated by reference into this permit. The LOQ shall be reported on the DMRs, shall be the lowest quantifiable level practicable, and shall be no greater than the minimum level (ML) specified in or approved under 40 CFR Part 136 for the pollutant at the time this permit was issued, unless this permit specifies a higher LOQ.

7.3.2 Appropriate Formulas for Effluent Calculations

The permittee shall use the following formulas for calculating effluent results to determine compliance with average concentration limits and mass limits and total load limits:

Weekly/Monthly/Six-Month/Annual Average Concentration = the sum of all daily results for that week/month/six-month/year, divided by the number of results during that time period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Weekly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the week.

Monthly Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the month.

Six-Month Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the six-month period. [Note: When a six-month average effluent limit is specified for Total Phosphorus the applicable periods are May through October and November through April.]

Annual Average Mass Discharge (lbs/day): Daily mass = daily concentration (mg/L) x daily flow (MGD) x 8.34, then average the daily mass values for the entire year.

Total Monthly Discharge: = monthly average concentration (mg/L) x total flow for the month (MG/month) x 8.34.

Total Annual Discharge: = sum of total monthly discharges for the calendar year.

12-Month Rolling Sum of Total Monthly Discharge: = the sum of the most recent 12 consecutive months of Total Monthly Discharges.

7.3.3 Visible Foam or Floating Solids

There shall be no discharge of floating solids or visible foam in other than trace amounts.

7.3.4 Surface Water Uses and Criteria

In accordance with NR 102.04, Wis. Adm. Code, surface water uses and criteria are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development or other activities shall be controlled so that all surface waters including the mixing zone meet the following conditions at all times and under all flow and water level conditions:

a) Substances that will cause objectionable deposits on the shore or in the bed of a body of water, shall not be present in such amounts as to interfere with public rights in waters of the state.

b) Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the state.

c) Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in waters of the state.

d) Substances in concentrations or in combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life.

7.3.5 Additives

In the event that the permittee wishes to commence use of a water treatment additive, or increase the usage of the additives greater than indicated in the permit application, the permittee must get a written approval from the Department prior to initiating such changes. This written approval shall provide authority to utilize the additives at the specific rates until the permit can be either reissued or modified in accordance with s. 283.53, Stats. Restrictions on the use of the additives may be included in the authorization letter.

7.3.6 Whole Effluent Toxicity (WET) Monitoring Requirements

In order to determine the potential impact of the discharge on aquatic organisms, static-renewal toxicity tests shall be performed on the effluent in accordance with the procedures specified in the *"State of Wisconsin Aquatic Life Toxicity Testing Methods Manual, 2nd Edition" (PUB-WT-797*, November 2004) as required by NR 219.04, Table A, Wis. Adm. Code). All of the WET tests required in this permit, including any required retests, shall be conducted on the *Ceriodaphnia dubia* and fathead minnow species. Receiving water samples shall not be collected from any point in contact with the permittee's mixing zone and every attempt shall be made to avoid contact with any other discharge's mixing zone.

7.3.7 Whole Effluent Toxicity (WET) Identification and Reduction

Within 60 days of a retest which showed positive results, the permittee shall submit a written report to the Biomonitoring Coordinator, Bureau of Water Quality, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, which details the following:

- A description of actions the permittee has taken or will take to remove toxicity and to prevent the recurrence of toxicity;
- A description of toxicity reduction evaluation (TRE) investigations that have been or will be done to identify potential sources of toxicity, including some or all of the following actions:
    (a) Evaluate the performance of the treatment system to identify deficiencies contributing to effluent toxicity (e.g., operational problems, chemical additives, incomplete treatment)
    (b) Identify the compound(s) causing toxicity
    (c) Trace the compound(s) causing toxicity to their sources (e.g., industrial, commercial, domestic)

(d) Evaluate, select, and implement methods or technologies to control effluent toxicity (e.g., in-plant or pretreatment controls, source reduction or removal)

- Where corrective actions including a TRE have not been completed, an expeditious schedule under which corrective actions will be implemented;
- If no actions have been taken, the reason for not taking action.
- The permittee may also request approval from the Department to postpone additional retests in order to investigate the source(s) of toxicity. Postponed retests must be completed after toxicity is believed to have been removed.

7.3.8 Upset

Definition: "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the conditions listed below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

Conditions necessary for demonstration of upset: A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An upset occurred and that the permittee can identify the cause(s) of the upset;
- The permitted facility was at the time being properly operated;
- The permittee submitted notice of the upset as required in the “Noncompliance Notification” Standard Requirement; and
- The permittee complied with any remedial measures required under the “Noncompliance Notification” Standard Requirement.

Burden of proof: In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

7.3.9 Reopener Clause

Pursuant to s. 283.15(11), Wis. Stat. and 40 CFR 131.20, the Department may modify or revoke and reissue this permit if, through the triennial standard review process, the Department determines that the terms and conditions of this permit need to be updated to reflect the highest attainable condition of the receiving water.

7.4 Land Application Requirements

7.4.1 General Sludge Management Information

The General Sludge Management Form 3400-48 shall be completed and submitted prior to any significant sludge management changes.

7.4.2 Land Application Characteristic Report

The analytical results from testing of liquid wastes, by-product solids and sludges that are land applied shall be reported annually on the Characteristic Report Form 3400-49. The report form shall be submitted electronically no later than the date indicated on the form. Following submittal of the electronic Characteristic Report Form 3400-49, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg .

All sludge results shall be reported on a dry weight basis.

7.4.3 Monitoring and Calculating PCB Concentrations in Sludge

When sludge analysis for "PCB, Total Dry Wt" is required by this permit, the PCB concentration in the sludge shall be determined as follows.

Either congener-specific analysis or Aroclor analysis shall be used to determine the PCB concentration. The permittee may determine whether Aroclor or congener specific analysis is performed. Analyses shall be performed in accordance with the following provisions and Table EM in s. NR 219.04, Wis. Adm. Code.

EPA Method 1668 may be used to test for all PCB congeners. If this method is employed, all PCB congeners shall be delineated. Non-detects shall be treated as zero. The values that are between the limit of detection and the limit of quantitation shall be used when calculating the total value of all congeners. All results shall be added together and the total PCB concentration by dry weight reported. **Note**: It is recognized that a number of the congeners will co-elute with others, so there will not be 209 results to sum.

EPA Method 8082A shall be used for PCB-Aroclor analysis and may be used for congener specific analysis as well. If congener specific analysis is performed using Method 8082A, the list of congeners tested shall include at least congener numbers 5, 18, 31, 44, 52, 66, 87, 101, 110, 138, 141, 151, 153, 170, 180, 183, 187, and 206 plus any other additional congeners which might be reasonably expected to occur in the particular sample. For either type of analysis, the sample shall be extracted using the Soxhlet extraction (EPA Method 3540C) (or the Soxhlet Dean-Stark modification) or the pressurized fluid extraction (EPA Method 3545A). If Aroclor analysis is performed using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.11 mg/kg as possible. Reporting protocol, consistent with s. NR 106.07(6)(e), should be as follows: If all Aroclors are less than the LOD, then the Total PCB Dry Wt result should be reported as less than the highest LOD. If a single Aroclor is detected then that is what should be reported for the Total PCB result. If multiple Aroclors are detected, they should be summed and reported as Total PCBs. If congener specific analysis is done using Method 8082A, clean up steps of the extract shall be performed as necessary to remove interference and to achieve as close to a limit of detection of 0.003 mg/kg as possible for each congener. If the aforementioned limits of detection cannot be achieved after using the appropriate clean up techniques, a reporting limit that is achievable for the Aroclors or each congener for the sample shall be determined. This reporting limit shall be reported and qualified indicating the presence of an interference. The lab conducting the analysis shall perform as many of the following methods as necessary to remove interference:

3620C – Florisil	3611B - Alumina
3640A - Gel Permeation	3660B - Sulfur Clean Up (using copper shot instead of powder)
3630C - Silica Gel	3665A - Sulfuric Acid Clean Up

7.4.4 Other Methods of Disposal or Distribution Report

The permittee shall submit electronically the Other Methods of Disposal or Distribution Report Form 3400-52 by January 31, each year whether or not waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit. Following submittal of the electronic Report Form 3400-52, this form shall be certified electronically via the 'eReport Certify' page by a responsible executive officer, manager, partner or proprietor as specified in s. 283.37(3), Wis. Stats., or a duly authorized representative of the officer, manager, partner or proprietor that has been delegated signature authority pursuant to s. NR 205.07(1)(g)2, Wis. Adm. Code. The 'eReport Certify' page certifies that the electronic report form is true, accurate and complete.

7.4.5 Land Application Site Approval

The permittee is authorized to landspread permitted liquid wastes, by-product solids and sludges on sites approved in writing by the Department in accordance with ss. NR 214.17(2) and 214.18(2), Wis. Adm. Code. Any site use restrictions or granting of case-by-case exceptions shall be identified in the approval letter. If the permittee wishes to have approval for additional sites, application shall be made using Land Application Site Request Form 3400-053. Complete information shall be submitted about each site, including location maps and soil maps, any soil analyses results and other information showing that the site complies with all application requirements and permit conditions. Spreading on a site may commence upon receipt of Department approval. If an existing spreading site is found by the Department to be environmentally unacceptable, a written notice will be issued to withdraw approval of that site.

7.4.6 Operating Requirements/Management Plan

All land application sites used for treatment of liquid wastes, by-product solids and sludges shall be operated in accordance with a Department approved management plan. The management plan shall be consistent with the requirements of this permit, ss. NR 214.17 (3) and (6), and NR 214.18 (3) and (6), Wis. Adm. Code. If operational changes are needed, the land application management plan shall be amended by submitting a written request to the Department for approval. A land application management plan shall be submitted for approval at least 60 days prior to land application.

7.4.7 Soil Incorporation Requirements

Cake Sludge Requirements: After land application, cake sludge shall be incorporated into the soil. The timing of such incorporation and other related requirements and procedures shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.

7.4.8 Field Stockpiles

The permittee is encouraged to landspread the by-product solids or sludges as they are transported to the fields; but if it becomes necessary to stockpile solids in the fields, the stockpiles shall be spread within 72 hours or as specified in the approved management plan.

7.4.9 Additional Requirements from ch. NR 214, Wis. Adm. Code

The requirements of s. NR 214.17 (4)(c) [pathogen prohibition for human consumption crop fields], (4)(d)1 [no adverse soil effects], (4)(d)10 [allowable whey spreading rates], and (4)(e)1-3 [by-product solids spreading within agricultural practices and not cause contamination] for landspreading of liquid wastes and by product solids and s. NR 214.18 (4)(b),(d)-(h) [application, nutrient, pH, metals, and PCB limitations] for sludge spreading systems are included by reference in this permit. The permittee shall comply with these requirements.

8 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
BMP Implementation and Reporting Schedule -Annual BMP Reports	February 15, 2019	36
BMP Implementation and Reporting Schedule -Annual BMP Report #2	February 15, 2020	36
BMP Implementation and Reporting Schedule -Annual BMP Report #3	February 15, 2021	36
BMP Implementation and Reporting Schedule -Annual BMP Report #4	February 15, 2022	36
BMP Implementation and Reporting Schedule -Annual BMP Report #5	February 15, 2023	36
BMP Implementation and Reporting Schedule -Annual BMP Reports After Expiration	See Permit	36
Mercury Pollutant Minimization Program -Annual Mercury Progress Reports	January 31, 2019	36
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #2	January 31, 2020	36
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #3	January 31, 2021	36
Mercury Pollutant Minimization Program -Annual Mercury Progress Report #4	January 31, 2022	36
Mercury Pollutant Minimization Program -Final Mercury Report	January 31, 2023	37
Mercury Pollutant Minimization Program -Annual Mercury Reports After Permit Expiration	See Permit	37
Water Intake Requirements -Annual Certification Statements and Reports	January 31, 2019	37
Water Intake Requirements -Annual Certification Statement #2	January 31, 2020	37
Water Intake Requirements -Annual Certification Statement #3	January 31, 2021	37
Water Intake Requirements -Annual Certification Statement #4	January 31, 2022	37
Water Intake Requirements -Annual Certification Statement #5	January 31, 2023	37
Water Intake Requirements -Annual Certification Statements After Expiration	See Permit	37
Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L) -Report on Effluent Discharges	March 31, 2019	37
Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L) -Action Plan	September 30, 2019	37
Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L) -Initiate Actions	March 31, 2020	37
Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L) -Complete Actions	September 30, 2020	38
Phosphorus Schedule - Continued Optimization -Optimization	September 30, 2019	38

Description	Date	Page
Phosphorus Schedule - Continued Optimization -Progress Report #2	September 30, 2020	38
Phosphorus Schedule - Continued Optimization -Progress Report #3	September 30, 2021	38
Phosphorus Schedule - Continued Optimization -Progress Report #4	September 30, 2022	38
Phosphorus Schedule - Continued Optimization -Progress Report #5	September 30, 2023	38
Phosphorus Payment per Pound to County -Annual Verification of Phosphorus Payment to County	March 1, 2019	38
Phosphorus Payment per Pound to County -Annual Verification of Payment #2	March 1, 2020	38
Phosphorus Payment per Pound to County -Annual Verification of Payment #3	March 1, 2021	38
Phosphorus Payment per Pound to County -Annual Verification of Payment #4	March 1, 2022	38
Phosphorus Payment per Pound to County -Annual Verification of Payment #5	March 1, 2023	38
Phosphorus Payment per Pound to County -Continued Coverage	See Permit	39
Phosphorus Payment per Pound to County -Annual Verification of Payment After Permit Expiration	See Permit	39
Land Application Management Plan -Land Application Management Plan	December 31, 2018	39
Annual Cumulative Loadings Report -First Annual Cumulative Loadings Report	January 31, 2019	39
Annual Cumulative Loadings Report -Second Annual Cumulative Loadings Report	January 31, 2020	39
Annual Cumulative Loadings Report -Third Cumulative Loadings Report	January 31, 2021	39
Annual Cumulative Loadings Report -Fourth Annual Cumulative Loadings Report	January 31, 2022	39
Annual Cumulative Loadings Report -Fifth Annual Cumulative Loadings Report	January 31, 2023	39
Annual Cumulative Loadings Report -Annual Cumulative Loadings Report After Expiration	See Permit	39
General Sludge Management Form 3400-48	prior to any significant sludge management changes	46
Characteristic Report Form 3400-49	no later than the date indicated on the form	47

Description	Date	Page
Other Methods of Disposal or Distribution Report Form 3400-52	by January 31, each year whether or not waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit	48
Wastewater Discharge Monitoring Report	no later than the date indicated on the form	40

Report forms shall be submitted electronically in accordance with the reporting requirements herein. Any facility plans or plans and specifications for municipal, industrial, industrial pretreatment and non-industrial wastewater systems shall be submitted to the Bureau of Water Quality, P.O. Box 7921, Madison, WI 53707-7921. All other submittals required by this permit shall be submitted to:

West Central Region-WI Rapids, 473 Griffith Avenue, Wisconsin Rapids, WI 54494-7859